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ABSTRACT

This book contains 31 papers from a conference on future training issues in Australia's industries. The following papers are included: "Training Development in Australia" (Chris Ellison); "Meeting National and Employer Training Requirements" (Mark Paterson); "Meeting Employee Training Requirements" (Bill Mansfield); "Training Challenges in Australia's Manufacturing Industries" (Richard Jenkins); "New Paradigms for Training and Learning Work Skills" (Sandra Yates); "Research and Development: Beyond the Bottom Line" (Ken Boston); "Where the Jobs Are: The Outlook for Jobs" (Chris Murphy); "Industry Training in Australia Today" (Peter Kirby); "Current and Future Issues in the Forest Products Industry and the Implications for VET (Vocational Education and Training)" (Nick Murray); "Rural Training" (Glennyss Leyne); "Training Is More Than Catching: Meeting Future Skill Requirements of the Australian Seafood Industry" (Ross Ord); "The Perfect Partnership: Innovation in Driller Training" (Rod McCallum); "Process Manufacturing Industries Today" (Jeremy Gilling); "Manufacturing Training Perspectives" (Bob Paton); "International Fibre Centre: A Study of Training Innovation" (Lynn Glover); "The NUEITAB (National Utilities and

Electrotechnology Industry Training Advisory Board)" (Paul O'Brien); "Gas Industry Skills Centre" (Joseph Calabrese); "Overview of the Building and Construction Industry" (Raymond Hutt); "Flexible Training Delivery in the Hospitality Training Industry" (Gavin Dadswell); "Needs versus Training in the Communications Industry" (Rob Gage); "Skills Formation for the Financial Services Industry: Agent of Change or Zookeeper to the Dinosaurs" (Loretta Winstanley); "NIBA (National Insurance Brokers Association): A Case Study in the Finance and Insurance Industry" (Linda Evans); "Vocational Education and Training in Australian Local Government" (Annabelle Langdale); "Trends and Training Issues in Government" (Meg Barnett); "Database Training for SAAP (Supported Accommodation Assistance Program) Management and Reporting Tool" (Janice Anderson); "A Union Perspective" (Sharan Burrow); "Current and Future Issues and Worker Education and Training" (Terri Seddon); "Factors Shaping the Training Agenda in the Health and Community Services Industries" (Lorraine Wheeler); "Flexible Training Strategies for Social and Community Services: A Case Study" (Berwyn Clayton, Lola Krogh); "The YMCA (Young Men's Christian Association) as Training Providers" (Rhys Williams); and "Training and the Sport and Recreational Industries" (Tony Guihot). (MN)

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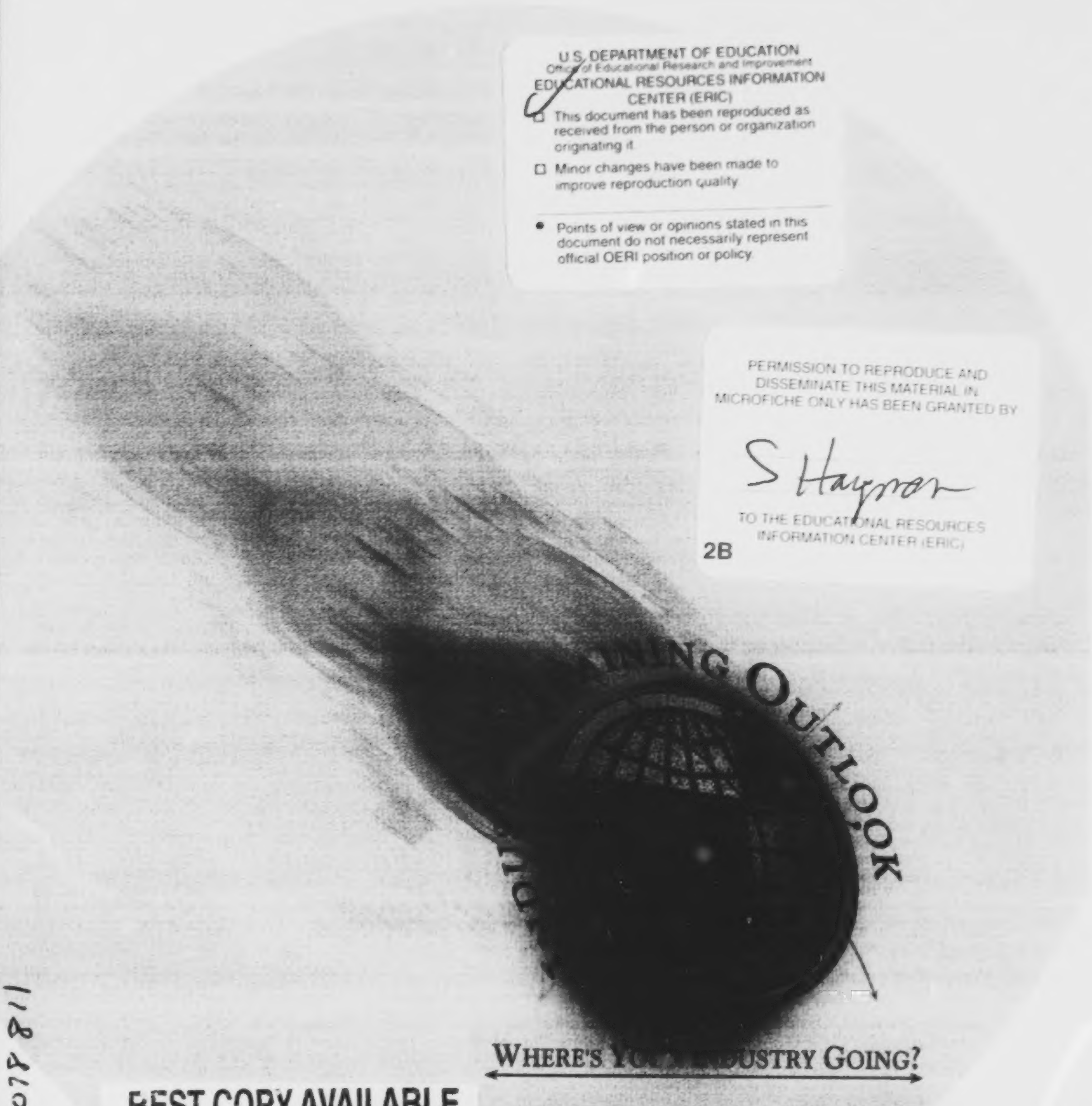

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NCVER

Future training issues in Australia's industries

A collection of the papers presented at the NCVER 1998 conference: Industry Training Outlook '98

Sydney, 12–13 October 1998

Edited by
Penelope Curtin

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Preface

THIS VOLUME CONTAINS papers from the National Centre for Vocational Education Research's (NCVER) Industry Training Outlook '98 conference held in Sydney in October 1998.

This volume, *Future training issues in Australia's industries* is divided into two parts: keynote addresses are presented in part 1, while industry training papers are reproduced in part 2. The papers in part 2 are selected papers highlighting training issues and innovative training programs in different industries in Australia.

This volume complements a companion publication that was prepared prior to the conference called *The outlook for training in Australia's industries* (NCVER 1998). *The outlook for training in Australia's industries* was designed to provide readers with an overview of occupational trends and the current training effort in occupations in each industry within Australia. The same material is also available in separate monographs for each industry.

NCVER acknowledges the Australian National Training Authority's (ANTA) significant contribution to the cost of this report in sponsoring its publication.

Anyone interested in copies of these or other NCVER publications should contact Client Services on +61 8 8333 8416. The postal address is PO Box 115, Kensington Park, SA 5068 and e-mail <orderit@ncver.edu.au>.

Readers who are interested in more information about industry training or other areas of vocational education and training (VET) research are referred to the NCVER's vocational education and training research database (VOCED). Printed and diskette versions of VOCED can be obtained from NCVER (ph +61 8 8333 8400) or it can be accessed directly on the world wide web at the following address:

<http://www.ncver.edu.au/voced.htm>

Chris Robinson
National Centre for Vocational Education and Research Ltd

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About the contributors

Janice Anderson

Janice Anderson's current position is that of Centre Manager for the Australian Centre for Public Administration and Business Training within the Faculty of Management and Business of the Canberra Institute of Technology. The centre's main clients are departments within the ACT Government and the Commonwealth Government.

Janice has been involved in the profession of teaching and training for over 20 years. She has both designed and delivered courses in a variety of disciplines to high school, technical and further education (TAFE), university and commercial audiences—mainly in the country regions of NSW and in the ACT.

Meg Barnett

As Executive Officer for Public Service Education and Training Australia Inc. (PSETA), Meg is responsible for the day-to-day activities of managing the PSETA Secretariat as well as project management for the Public Services Training Package. She is also a principal consultant within the Office for the Commissioner for Public Employment and Chair of the Dale Street Women's Health Centre.

PSETA was established as the nationally recognised body for the State governments and Commonwealth Government and is responsible for the national management development program. Meg's qualifications include a Graduate Certificate in Staff and Organisational Leadership, a Bachelor of Arts, double major in Psychology and Women's Studies and a Diploma in Photography.

Ken Boston

Dr Ken Boston is the Managing Director of TAFE NSW and Director-General of Education and Training.

He is a Fellow of the Australian College of Education, a Fellow of the Royal Geographical Society and a Fellow of the Australian Institute of Management.

Dr Boston is a member of the Board of the Australian Council for Educational Research, the Civics Education Group and the Board of the National Centre for

Vocational Education Research. He is also on the Board of the National Council of Musica Viva, the Committee for Economic Development of Australia, the NSW Centenary of Federation Committee and the Board of Trustees of Young Achievement Australia. He is the Chair of the National Advisory Committee for the Third International Mathematics & Science Study (TIMSS) and a member of the Council of the University of Technology, Sydney.

Sharan Burrow

Sharan Burrow is currently the Federal President of the Australian Education Union. Her career as an educator includes ten years of teaching in secondary schools in western New South Wales, five years as a regional organiser for the NSW Teachers' Federation and three years as the Senior Vice President of the NSW Teachers' Federation.

Sharan is also a member of the Australian Council of Trade Unions (ACTU) Executive, Australian Centre for Equity through Education, Curriculum Corporation, National Schools Network and Evatt Foundation executive boards. Sharan is also involved in international education and trade union activities. She is Vice President and Vice Chair of the Asia Pacific Region in Education International.

Joseph Calabrese

Joseph Calabrese is the Manager of the Gas Industry Skills Centre, based in Chullora, Sydney. Joseph has been responsible for setting up the Gas Industry Skills Centre from concept through to its current status. As Manager, Joseph is responsible for pulling together industry needs, identifying the most cost-effective training provider and methods of delivery. Joseph is also currently the Manager of AGL's Skill Centre and Director of the NSW Utilities & Electrotechnology Industry Training Advisory Body (ITAB).

x

In 1988, Joseph became an instructor in the AGL's training centre and then Master of Apprentices. In his 23 years with AGL he has been involved in most areas of gas networks, construction and maintenance. A plumber and gasfitter by trade, Joseph has had experience in a wide range of gas industry activities.

Berwyn Clayton

Berwyn Clayton is the Head of the Research and Evaluation Department in the Education Development Centre, Canberra Institute of Technology (CIT). She manages an ongoing project within the institute which encourages the development of innovative approaches to competency-based assessment and delivery. Berwyn has worked with Lola Krogh and other teachers within CIT to reflect on their current assessment and delivery practices to implement alternative approaches which better meet the needs of industry and students alike. In four years, over 50 of these action research projects have been successfully completed. Berwyn has a Bachelor of Arts and Bachelor of Education Studies.

Gavin Dadswell

Gavin Dadswell currently holds the position of National Training Development Manager, HTC Vocational Institute. Gavin has an extensive background in the training and development industry. His international experience includes the management of multi-site learning centres in the United Kingdom working for the National Education and Training Group. This experience formed the foundation of his work with HTC Vocational Institute where he has introduced several innovative models of training delivery for entry-level and pre-employment initiatives.

Chris Ellison

Chris Ellison studied law at the University of Western Australia. After two years as an articled clerk and working at the Legal Aid Commission of Western Australia, he became a practising partner in the Perth legal firm Williams Ellison, specialising in criminal law.

He was elected a senator for Western Australia in 1993. In the four years since he was elected, his areas of parliamentary involvement have included legal and constitutional legislation, foreign affairs, defence, native title, transport, print media, euthanasia, regional development, the arts and justice. He was also a member of the Government Committee on Employment, Education, Training and Youth Affairs.

In 1997 Chris Ellison was appointed as Parliamentary Secretary to the Minister for Health and Parliamentary Secretary to the Attorney-General; he was subsequently appointed Minister for Customs and Consumer Affairs and Minister assisting the Attorney-General. In October of that year he was appointed Minister for Schools, Vocational Education and Training.

Linda Evans

Linda Evans has held the position of Professional Development Executive of the National Insurance Brokers' Association (NIBA) since 1991. As part of this role she put in place the first accredited qualifications and career path for insurance brokers. NIBA is also expanding the Qualified Practising Insurance Broker (QPIB) system to broker associations in New Zealand and other parts of the region with the aid of Austrade.

After completing an honours degree in education at the University of Sydney, Linda spent a number of years in educational research looking at adult education issues before moving into consumer research. Linda's work experience has been focussed in the financial sector where she has held senior marketing positions at Westpac Bank, Chase AMP Bank and Capita Financial Group before joining NIBA. She has also completed a Graduate Diploma in Marketing and Master of Business degree at the University of Technology, Sydney.

Linda is also an inaugural Board member and current Chair of the Finance and Business Services Industry Advisory Body (NSW).

Jeremy Gilling

Jeremy Gilling is the Executive Officer of Manufacturing Learning Australia (MLA). MLA is the national ITAB for the process manufacturing industries, comprising oil and gas extraction; oil refining; chemicals; steel; plastics, rubber and cablemaking; and non-metallic mineral products (including cement, concrete and glass).

Jeremy was previously a ministerial adviser, labour market analyst and consultant on workplace reform.

Tony Guihot

Tony Guihot is currently employed as the Chief Executive Officer of Sport and Recreation Training Australia Limited, the industry training advisory board for the sport and recreation industries in Australia. His involvement in sport spans some 28 years as a player, administrator and coach.

Tony left school aged 15 with a commitment to life-long learning, which has seen him progress since then from an apprentice electrician, through to a school/TAFE teacher, to administrator and coach. He has, for the past five years, been head coach of the Australian Men's Basketball Team for players with an intellectual disability. Tony is currently in the process of completing his second masters degree.

Raymond Hutt

Ray Hutt has, for the past 16 years, held senior government and industry positions. These range from senior policy officer positions with the Northern Territory Government through to his current position of Chief Executive Officer of the National Building and Construction Industry Training Council (CTA).

Ray sees his greatest achievement taking place now through the opportunity offered by his appointment to CTA, and the role being developed for CTA through to 2015.

Ray holds a Diploma of Mechanical Engineering (Production Technology), a Diploma of Education, a Diploma of Company Directors and is a Fellow of the Australian Institute of Company Directors. He maintains an avid interest in all facets of running a national association as a small business, but particularly the facet of governance.

Richard Jenkins

Richard Jenkins is the Principal Adviser – Training and Skill Enhancement for the Australian Industry Group. In his position Richard provides advice and assistance to members on vocational training matters. Richard is also the Director of the National and NSW Boards of the Manufacturing Engineering and Related Services Industry Training Advisory Board and of the National Business Services Industry Training Advisory Board. Richard has been closely involved with the development of competency standards and modular course structures for industry especially for the metal and engineering industry.

Richard has held a number of positions in the training area, including that of National Coordinator for the National Metal and Engineering Training Board, National Project Officer for the Workskill Australia Foundation and various positions in the Training Branch of the Department of Employment, Education and Training.

Peter Kirby

Peter Kirby was appointed to the Board of the National Centre for Vocational Education Research (NCVER) in 1996 and as Chair in October of that year. He also chairs the National Research and Evaluation Committee (NREC), a standing committee of the Board. Peter has had a long association in government with industrial relations, employment and education issues.

In the 1980s, Peter worked in employment, training and education with the Victorian Department of Labour, was subsequently head of Victorian TAFE, Commissioner of the Victorian Post-secondary Education Commission, Director of the government's Youth Guarantee and General Manager of Policy Coordination in the Ministry of Education.

In 1984 and 1985, Peter chaired the National Inquiry into Labour Market Programs, producing what is now known as the Kirby report. This most influential report led to, among other things, the introduction of traineeships in Australia.

In 1988, Peter became Director-General of the Department of Employment and TAFE in South Australia and returned to Victoria to head the Premier's Department in March 1991. In October 1992, he became head of the Education Department in Victoria, before retiring from the public service in 1996.

Lola Krogh

Lola Krogh is a teacher in the Department of Welfare Studies at Canberra Institute of Technology. She teaches the Diploma of Community Services (Welfare) and the Certificate in Youth Justice. Lola has recently developed innovative strategies for workplace delivery and industry training partnerships. She considers the highlight of her career her evolution into the education industry as a mature-age learner. She has an Associate Diploma in Social Science (Welfare Studies), a Certificate IV in Tertiary Education and Training and is currently completing a degree in adult education by distance and a Graduate Certificate in Advanced Professional Practice.

Annabelle Langdale

Annabelle Langdale has had more than 15 years experience in the vocational education and training field. She has worked in the Commonwealth Government and local government sectors in the union movement and in private enterprise. Her initial involvement was in the community services and health area in the ACT Health Authority. She later moved to the National Occupational Health and Safety Commission.

Annabelle was seconded to the Joint Australian Public Service Training Council as a project leader for the Commonwealth Government's core competency project. Two years in the arts and cultural heritage sector were followed by a period in the union movement as a training advisor.

In her current role as Chief Executive Officer of Local Government Training, she is responsible for the development and implementation of an education and training advisory service to local government. She also provides advice to the Commonwealth Government on local government education and training needs.

Glennyss Leyne

As Senior Project Officer for the Rural Training Council of Australia (RCTA), Glennyss works closely with the Executive Officer, Ian McFarlane, to ensure that training developed for rural industries meets the needs of industry. To this end RTCA has put in place a consultation and validation process to ensure that the training developed for rural industries is owned and supported by industry.

Before moving to Canberra, Glennyss worked in both distance education and TAFE in Mount Isa, Queensland. This experience gave her an insight into the problems many rural people face in trying to acquire vocational skills and qualifications when located in remote areas.

Her academic qualifications include a Bachelor of Arts.

Bill Mansfield

Bill Mansfield is the Assistant Secretary for the Australian Council of Trade Unions, a position he has held since 1985. He is Deputy Chair of the Australian National Training Authority, a member of the Board of the Australian Quality Council, and a member of the Governing Body of the International Labour Organisation (ILO).

Previously, Bill worked for Telecom Australia from 1958 to 1962. He was then employed by the Australian Telecommunications Employees Association (ATEA), both in the Victorian branch and the federal office. He was Federal Secretary of ATEA from 1977 to 1985.

Bill was also the ACTU nominee to the Committee of Inquiry into Technological Change in Australia (CITCA) from 1978 to 1980.

Rod McCallum

Rod McCallum is Director, Drilling Training Services Pty Ltd. Currently he is course administrator for surface and underground mineral exploration drilling training programs, conducted in conjunction with the Western Institute of TAFE, Dubbo.

Rod commenced his career in the drilling industry in 1960. From 1970 to 1977 he was employed as a drilling consultant engaged on large-scale groundwater development projects in Southern and Central Africa, and the United Arab Emirates. He returned to Australia in 1977 and was employed as a Field Service Engineer for Johnson Screen Division, Universal Oil Products Pty Ltd. Between 1984 and 1985 he was contracted to the Australian Drilling Industry Association and later accepted the position of Chief Executive Officer, a position he held until early 1991. In 1991 he joined Pontil Pty Ltd, Mineral Exploration Drilling contractors, as their Training and Safety Officer and in January 1998 Rod and the Managing Director of Pontil Pty Ltd, Tom Browne, established Drilling Training Services Pty Ltd.

Rod is a former director and member of the Australian Drilling Industry Association, a foundation member of the Drilling Association of Southern Africa, a foundation member of the Well Drillers' Association of the Philippines, a ministerial appointee to the NSW Drillers Licensing Management Board, a former director and current member of the editorial committee for Drilling Industry Learning Strategies, and a member of the Australian Drilling Industry Training Committee Ltd.

Chris Murphy

Chris Murphy is the Director of Econtech, an economic consultancy founded by him in 1994. At Econtech he has developed Murphy Model 2, which is widely used for forecasting and policy analysis at the national, industry and State levels. Econtech also builds specialist economic models under contract to clients, such as the South Australian Model (SAM) built for the South Australian Government, and the New Zealand Model (NZM) built for the Treasury of that country. More recently, he has constructed the MM303 model which deals with the economy-wide effects of indirect tax reform at a high level of detail and which has been used by various governments and industry associations.

Chris was an economic modeller at the Treasury (1979–1983) and the former Economic Planning Advisory Council (1984–1986). He then developed the Murphy Model at the Australian National University, before leaving in 1992 to become a Director of Access Economics.

Chris holds a Bachelor of Economics Degree with First Class Honours and the University Medal from Sydney University, and a Master of Economics Degree from the Australian National University.

Nick Murray

Nick Murray is the Executive Officer of the Forest and Forest Products Employment Skills Company Ltd (FAFPESC). FAFPESC is both the national industry training advisory body and the Victorian State industry training advisory body for the forest and forest products industry, based in Melbourne, Victoria.

FAFPESC is actively involved in leading the development of vocational education and training resources and implementation strategies and in the provision of direct assistance to industry to access education and training to support enterprise and industry development.

Nick's qualifications include a Bachelor of Education, Graduate Diploma in Business Management, and he will complete his Master's Degree in Human Resource Management later this year.

Paul O'Brien

In his current role as Senior Executive Officer for the National Utilities and Electrotechnology ITAB, Paul has primary responsibility for industry training issues for the water resources and gas supply industry sectors.

Paul was formerly the Executive Officer of the Water Industry Education and Training Association of Australia, the first national ITAB for the water industry. He has been working in the industry training field for over a decade, having been an officer of the Commonwealth Department of Employment, Education, Training and Youth Affairs in the Central Office in Canberra from 1984 to 1993. During that time he assisted with the implementation of the Australian Traineeship System, Industry Skills Centres and was a Director of the Australian Local Government Training Board.

Paul is currently undertaking a Master of Education Degree in Adult and Workplace Education through the Queensland University of Technology.

Ross Ord

Ross Ord was appointed to his current position as Manager, Seafood Training Australia (STA) in August 1997 on STA's recognition as the national ITAB for the Australian seafood industry. Ross previously worked for the Australian National Training Authority on industry training issues and with a national ITAB with responsibilities for developing competency standards and other components of training packages.

Previously Ross was a Senior Education Officer with the RAAF. He has also worked as a training officer in the uranium mining industry in northern Australia and as a training consultant. Ross has tertiary qualifications in economics and post-graduate qualifications in education and management.

Mark Paterson

Mark Paterson was appointed as Chief Executive of the Australian Chamber of Commerce and Industry, Australia's leading business representative organisation, in June of 1996.

Prior to this appointment, Mark was the Executive Director of the Retailers' Council of Australia and was also the Executive Director of the Retailers' Association of New South Wales.

Earlier experiences involved time with the Australian Chamber of Manufacturers, the Chamber of Manufacturers – NSW, the Australian Medical Association and, prior to 1981, in the South Australian Public Service Board.

Mark was, for five years, joint Chair of the Retail Employees' Superannuation Trust, the largest industry super fund which has had more than a million members and more than $1 billion under management.

Mark has held a number of directorships on vocational training-related bodies and continues as a director of the Credit Reference Association of Australia. He was appointed Chair of the National Training Framework Committee of the Australian

National Training Authority in October 1996 and served as an ex-officio member on the ANTA Board until 30 June 1998.

Mark was appointed by the Governor-General as a part-time member of the ANTA Board from 1 July 1998 to 31 December 2000.

Bob Paton

Bob Paton is currently National Executive Officer, Manufacturing Engineering and Related Services (MERS) ITAB. Bob sees his role in a national ITAB as a natural extension of previous industry and TAFE experience. He enjoys the challenges of development and implementation of training reform from an industry perspective. These involve working in close conjunction with the national network of State and Territory ITABs to implement national training policies for the industry.

MERS ITAB covers the sectors of manufacturing, metal and engineering industry as well as the manufacturing, maintenance and repair part of the aerospace industry. Each sector faces similar training issues and Bob sees that the contemporary challenge of effectively marketing the benefits of recognised training to industry must be supported by a committed training industry and a sound information base to inform planning.

Terri Seddon

Terri Seddon is an Associate Professor in the Faculty of Education, Monash University. She is currently the co-ordinator of the professional doctorate program and part of the academic team for adult and vocational education and training. She teaches courses in policy studies, social analysis of education and training, and teachers' work. Her research focusses on restructuring and changing patterns of educational provision and practice.

Terri's recent research on contemporary reforms in education and training in the context of globalisation has provided the basis for rethinking the faculty's program of professional education.

Terri's career highlights include the authoring of three books. She is currently preparing another manuscript based on a study of restructuring in schools and TAFE in Victoria. Her academic qualifications include a PhD.

Lorraine Wheeler

Lorraine Wheeler has an extensive background working at the national level on vocational education and training (VET) initiatives. This includes policy development at the National Training Board defining high-quality national competency standards, resolution of language and literacy issues and facilitating implementation of VET in schools.

Her involvement in national ITABs includes establishing the National Public Administration ITAB and the development of VET planning processes for that industry. Since commencing working in the community services and health industries she has been instrumental in developing the training package framework for the community services industry and developing the scoping report for the proposed Health Training Package.

She has undertaken influential work at the State level to assist in the introduction of the Australian Recognition Framework and to ensure the ongoing effectiveness of State ITABs in the national network.

Lorraine is currently contracted to provide executive management services to the Community Services and Health ITAB.

Rhys Williams

In his current position as Director of the Australian YMCA Institute of Education and Training, Rhys is responsible for providing leadership for the development and enhancement of the YMCA's national accredited training effort.

Rhys has spent nearly 20 years in VET. Prior to his current position he was the Senior Project Manager, Open Training Services (1995–1997) and Head of the Social Science Department of RMIT University (1988–1994).

His career highlights include the development and accreditation of VET's first language acquisition program in the early 1990s. He developed the national competency standards for the language services industry and the Diploma of Interpreting. He has also managed a wide range of innovative and flexible learning projects including resource developments and has established flexible learning centres. He was awarded a Churchill Fellowship in 1996.

Loretta Winstanley

Loretta Winstanley has been the Executive Officer of the National Finance Industry Training Advisory Body Ltd (NFITAB) since it commenced operations in January 1996. Prior to this appointment she has held executive officer positions in State ITABs in finance and business services and building and construction.

She has considerable experience in special and remedial education and adult migrant education and has developed and implemented special vocational educational and training programs within the fields of phosphate mining, chicken processing, prisons, water and civil engineering.

The NFITAB has to date obtained in excess of $3 million of funding for the development of these nationally recognised products.

Sandra Yates

Sandra Yates is the Chair of Saatchi & Saatchi Australia, a major multi-national advertising agency, and the Chair of the NSW TAFE Commission Board.

Sandra is also a director of the Demeter Group Pty Ltd, a consulting practice which provides strategic advice to management on integrated communication with women, as employees, customers and stakeholders.

Between 1994 and 1995 she was Chair of the Australian Council for Women. She was previously the publisher of Time magazine, a position she held from 1990 to 1993. During the period, she led Time to its current position as the number one news and business magazine in Australia, in both circulation and readership.

Prior to that, Sandra was President and Chief Executive Officer of Matilda Publications Inc. She was employed by the John Fairfax organisation between 1980 and 1988, working in both newspapers and magazines. In 1984, Sandra was appointed Deputy to the Chief Executive of Fairfax Magazines.

Sandra is President of Chief Executive Women, and the YWCA of Sydney, and a director of the Advertising Federation of Australia and UNICEF. She is a member of the Advisory Council of the Australian Graduate School of Management. Sandra is also a Fellow of the Australian Institute of Company Directors, the Australian Institute of Management, and the Australian Marketing Institute.

PART 1

Keynote papers

Training development in Australia

Senator the Hon. Chris Ellison

Introduction

I WOULD LIKE to thank Chris Robinson, the Managing Director of the National Centre for Vocational Education Research for inviting me to open the conference.

I applaud the focus on industry and training, the theme of this year's conference. Vocational education and training (VET) is of increasing importance to Australian industry operating in a global economy. Industry needs a training system that efficiently delivers skills in a timely manner.

Industry has a key role to play in leading and developing training reforms. The federal government recognises that industry support is critical to the success of training reforms.

The government has worked with States and Territories to improve the responsiveness of training to industry needs and to build a training system that:

- builds better pathways from school to work
- expands training opportunities for young people through New Apprenticeships
- provides more streamlined training arrangements for employers, less regulation of providers and course development, while maintaining quality assurance
- provides more client choice and increased involvement of private providers in delivery of publicly funded programs

VET in schools

VET programs in schools are being developed in partnership with schools and industry as well as with other stakeholders. These programs establish exciting new pathways which give young people the chance to gain industry-recognised skills before leaving school.

The federal government has provided funding of $57 million in the financial year 1998/99 to support a range of measures to expand VET in schools and I welcome industry's continued involvement in these programs.

New Apprenticeships

New Apprenticeships are a direct result of the government listening to strong messages from industry and business about the need to make the training system simpler and more relevant.

In the past, off-the-job apprenticeships and traineeships mainly involved public providers delivering training away from the workplace. Often this training was not always well integrated with on-the-job training. We need to build a closer connection between the training system and the needs of individual firms.

New Apprenticeships provide more flexible arrangements including part-time apprenticeships and traineeships. They allow a young person to start an apprenticeship or traineeship while still at school. I am pleased to say that there are already an estimated 1000 young people currently undertaking school-based New Apprenticeships.

The new arrangements will progressively provide structured employment-based training covered by training agreements in virtually all industries and occupations. These include new and emerging industries such as information technology and multi-media.

I believe these new arrangements have re-invigorated the traineeship and apprenticeship system with the number of people in training reaching a record high of 183 800 in early 1998 and likely to reach 200 000 by the end of 1998. The federal government allocated $433 million in the 1998/99 Budget to underpin this strong growth in new apprenticeships.

Consultations are currently under way by the Department of Employment, Education, Training and Youth Affairs within the industry sectors to develop action plans to increase the take-up of New Apprenticeships. This involves seeking on-the-ground advice on what the priority issues for specific sectors are, and exploring with industry what the government can do to help address those issues.

I want to encourage industry and business to utilise the flexibilities provided under New Apprenticeships and to open up more training opportunities in a wider range of industries and occupations. We want to see more training opportunities, particularly in areas where there are skill shortages, poor training effort and projected employment growth. This applies particularly to rural and regional Australia.

New apprenticeship centres

In response to industry and employer concerns about red tape and the complexities involved in taking on an apprentice or trainee, new apprenticeship centres were established as part of the Job Network on 1 May this year. These centres provide a one-stop, integrated service to employers and trainees.

Services provided by new apprenticeship centres include:

- providing up-to-date information on apprenticeship and traineeship options
- marketing and promoting New Apprenticeships at the local level
- providing administrative services to employers, apprentices and trainees

Contracts have been entered into for the delivery of 200 000 New Apprenticeships places nationally, over a 19-month contractual period from 1 May 1998 to 30 November 1999. Nationally, 34 per cent of the business to deliver these apprenticeships was won by industry associations and employer groups. This strong industry presence will ensure the responsiveness of the network of providers to the needs of employers.

Altogether there are 60 organisations now operating more than 200 new apprenticeship centres across the country, servicing both metropolitan and rural employers.

User choice

User choice was introduced as a funding mechanism for New Apprenticeships to give employers and new apprentices the ability to choose their preferred registered training provider—public or private—and also to negotiate aspects of training such as location, timing and mode of delivery.

At present, all States and Territories are moving to implement user choice. New South Wales, which had previously reserved its position, has now indicated that all trainees and their employers are able to select public or private training providers and all apprentices and their employers, their preferred technical and further education (TAFE) college.

The ongoing implementation of user choice will be informed by the findings of a national evaluation which commenced earlier this year and is expected to be completed at the end of 1999.

Consultations undertaken as part of the first phase of the national evaluation of user choice found that user choice is perceived by employers as a potentially powerful means of improving the flexibility of training provision and increasing the numbers of apprentices/trainees taken on by firms.

Employers expressed considerable interest in the potential of user choice to realise more flexible new apprentice training arrangements. The timing of training is considered a significant problem with the current system. For example, employers in the construction industry found traditional block release did not suit the nature of contracting arrangements that varied considerably between jobs. For them, day release was an easier option which enabled them to plan effectively.

In the hospitality industry, certain times of the year tend to be busier than others. For employers in this industry it was preferable to have training take place in small blocks that coincided with quieter times of the year.

I encourage industry to utilise the flexibility provided by user choice.

Training packages

Industry has been actively involved in the development of training packages. Training packages specify industry competency requirements for national vocational education and training qualifications, including New Apprenticeships.

Training packages now create a direct link between standards and qualifications. This new approach creates the basis for moving away from cumbersome and rigid arrangements based on course accreditation.

There are now 18 training packages available covering a range of industry sectors. It is expected that, by the end of 1998, that there will be 30 training packages available covering around half of the national workforce. These packages will assist in improving the responsiveness, flexibility and accessibility of structured workplace and/or off-the-job training, and provide improved career pathways for new apprentices and others in the existing workforce.

Future outlook

Through the reforms I have mentioned, governments have worked together with industry to build a high quality national vocational education and training system. These reforms will be consolidated. However, we cannot afford to stand still.

As we move into the new millennium we will face the continuing pressure of global markets. Globalisation will make international competition even tougher for industry. Electronic commerce is already eroding national borders, enabling businesses to more readily access overseas markets and allow Australian consumers to roam the world for bargains.

We face an escalating technological revolution. New information and communication technologies will significantly impact on the community in general, and on Australian enterprises in particular. These technologies will continue to be developed and introduced across all industry sectors and most areas of work.

Consumers will increasingly expect more in terms of range and quality of products and services.

We face changes in the way work is organised. There will be a growing incidence of 'non-traditional' working arrangements; for example, through increasing use of outsourcing and contract employment there will be greater self-employment.

These challenges will increase the demand for new and different skills and they call for flexible and innovative training delivery arrangements to enable people to attain these skills and to develop the capacity to be lifelong learners. They also require a sophisticated and rigorous approach to identifying industry-specific issues and needs in terms of skills development.

Governments must continue to work closely with industry to meet these challenges. Governments will need to do this by ensuring that training keeps up with technological change and is relevant to industry. One of the key performance measures for the national VET system, agreed by Commonwealth, State and Territory ministers will measure how well industry needs and those of the economy are being met by the training system.

Ensuring that young people, in particular, and the workforce generally, are properly skilled is an important part of the government's plan for job growth and a stronger Australia.

There will need to be a continued research effort on issues affecting the future of the VET sector. These issues include the training needs arising from emerging industries and technologies and their implications for VET. It will also be important to consider how well Australia is geared to deal with the skill and knowledge demands of the future economy.

I commend the National Centre for Vocational Education Research for the excellent work they are doing on the research front as evidenced by the impressive collection of industry profiles prepared for this conference.

Australian industry makes a substantial investment in VET amounting to about $2.5 billion annually. This figure exceeds $4 billion if wages and salaries for time spent in training are taken into account.

There is substantial evidence that those countries which have industries able to compete on quality and variety of products have a high level of skills in their workforces. International studies suggest that where VET improves the skills of the workforce, firms are able to:

- take on innovative and skill-intensive work practices
- more effectively utilise advanced manufacturing and service technologies
- increase productivity
- enter more sophisticated and high-value product markets, including export markets

It is critical that Australian industry continues to place a high value on training and to see it as a key instrument in maintaining and improving both firm and national competitiveness. Our economy depends on it. This is an exciting time for those involved with VET. The opportunities and flexibilities for industry in the training system have been broadened considerably and I encourage industry to take full advantage of them.

Meeting national and employer training requirements

Mark Paterson

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THE AUSTRALIAN CHAMBER of Commerce and Industry (ACCI) is the peak national business organisation. The organisation does not have individual companies as direct members; it is a peak council of Australia's leading State and Territory-based chambers of commerce and industry, and of most of the major national industry associations. Through its constituency it represents in excess of 350 000 businesses in every State and Territory in every industry sector, and the businesses represented cover about 90 per cent of non-farm sector employment within Australia. With that membership base, we have a very strong and active interest in all aspects of the economy and particularly in relation to vocational education and training (VET).

In relation to ACCI's role in VET, it is clear we have a responsibility to take leadership in the development and pursuit of reform within training. There is an increasing recognition that skills and the quality of the workforce provide a competitive advantage for business, a view not embraced by all businesses, but it is a view increasingly being adopted by businesses throughout Australia. I think it is important that employment, education and training is seen as a key component in the overall economic framework of Australia and integral to the organisation's future success.

A major challenge exists for all of us in being able to both recognise skill shortages and to determine how to deal with them. In many cases they will be addressed or at least assisted by changing the nature of our VET system. There's also an important role for us, given the nature of our organisation, to be able to support our member organisations across the VET system throughout Australia. We have traditionally focussed our VET systems on a State or Territory basis and that hasn't met the needs either of Australia as a nation, or of the employers within those States or Territories. Over the last few years a much greater recognition of the need for developing a system on a nationwide basis has been given. It is also important, I believe, that both ACCI and its constituent organisations continue to influence the system and the stakeholders to meet the needs of employers and industry. There's often a provocative view taken by some within the training industry who say the 'clients' of the training system are the students (or the prospective employees) not the employers. Our view is that the VET system has to be in a position to meet the needs of the employers because it's the employers that provide the employment.

Looking more generally at the role of employer organisations in relation to VET reform, I think that there has to be an enhancement of the ownership of VET. Once upon a time, industry saw VET as technical and further education's (TAFE) responsibility or as government's problems. I think that it's important that we encourage employers and their organisations to take on the ownership of VET and to pursue further change. I think it is also important to provide wide industry and enterprise coverage. Everyone would recognise that some industries have traditionally been well supported by the publicly provided VET system while others have been largely or completely ignored. I think it is also important for employer organisations to facilitate access to the key forums where change, in relation to VET, is discussed. We are moving to a much more nationwide system, but we need to ensure that we adopt that nationwide system throughout the States and Territories, and it's important that we continue, through our employer organisations, to strengthen those regional and State linkages. We also need, through those organisations, to provide a viable employment, education and training support structure to the members of those organisations.

I believe that by pursuing change in these areas we will facilitate growth, and facilitate growth of all of our enterprises.

Let us examine the factors that influence employers and influence their decisions to employ. There is a whole range of complex interactions which work together in an interesting jigsaw of effects that will influence the overall decisions made by employers. The economic conditions by which an employer's business operates will clearly have an impact on the capacity to employ, as will a range of other business or environment issues such as the industrial relations structure in which businesses are expected to operate. Consider the supply of labour and the supply of appropriately skilled labour. It's interesting that, with in excess of eight per cent unemployment on average, we are still finding employers expressing concern about access to the appropriately qualified staff. So if economic activity were to pick up in Australia, we wouldn't necessarily see the rate of unemployment come down. In many cases the skilled employees sought by employers are not part of the unemployment pool. Thus increasing the rate of economic growth, unless we do something about skill shortages and something about the nature of our VET system, won't necessarily bring down the overall level of unemployment.

The desire to have both access to a pool of appropriately skilled employees and to retain those appropriately skilled employees came out in the results of a recently held survey which was designed to identify, from a business perspective, where change was required. Skilling of employees within businesses was high on that list of areas for change, as was access to appropriately qualified people, and also importantly, being able to retain those people within those businesses. To achieve this we need a responsive VET system as well as a responsive, broader education and training system.

And we shouldn't just be focussing on what goes on what we have traditionally regarded as the TAFE system around Australia: it is important for us also to focus on the changes taking place in schools and in higher education, and the linkages between schools and VET, the linkages between schools and higher education, the linkages between schools and industry, all areas receiving significant resources in recent times. It is also important that in bringing all of those elements together, we develop what is being described by some as a training culture and by others as a learning culture. I believe the future success of Australia will be very much dependent upon us all adopting a learning culture approach to our business and to our VET reforms.

Considering now some of the other key factors in developing an industry perspective in these areas. Employment and training opportunities are clearly linked to strong economic growth. Demand for skilled people with VET qualifications is in many cases exceeding supply and we need to focus particular attention on this and ensure that we continue to monitor any significant gaps created over time. There is an increasing recognition of VET qualifications across industry, particularly in those industries that haven't had the traditional traineeships or traditional apprenticeships. For new and emerging industries we need to see a recognition of VET qualifications and be prepared to develop new qualifications. The development of training packages is an important initiative, particularly in the new emerging industries—to have qualifications that are recognised throughout Australia and recognised by employers across the artificial State borders. There's also the potential impact of connecting industrial relations with qualification attainment. We have worked very, very hard with the Australian Council of Trade Unions (ACTU) and many others in trying to ensure that we don't distort the reforms of VET by a whole series of industrial relations considerations. I think it is important that as training packages and new qualifications are developed we try to keep the traditional industrial relations system and the vocational education reforms at some distance so that we don't have employers walking away from embracing VET reforms because of fear of industrial relations issues.

Some of the other factors significant in considering VET reform is that economies are more dependent on production, distribution and use of knowledge than ever before. I think it is important that employers generally recognise the reliance of economies, both within Australia and around the world, on the distribution and use of knowledge, and that we put in place appropriate mechanisms to underpin that. New technology is clearly changing the nature of the workplace. Technology is affecting everybody in employment and in all industry sectors throughout Australia and elsewhere in the world.

I believe also that Australia's mix of academic, vocational-based and basic generic skills, including literacy, are not in balance with the emerging needs of industry. In the past, universities and TAFE colleges determined what the output would be and how they would allocate resources in terms of training. Quite often the emerging needs or the needs of industry were largely ignored. I think it is important that, on the basis of the research undertaken by the National Centre for Vocational Education Research

(NCVER) we recognise that there has to be a link between expenditure both in VET and in higher education, and the needs of employers and the emerging needs of employers, particularly if we are going to meet the strategic objectives of the economy.

A couple of other important issues. The increasingly sophisticated client demands the desired product. Employers once upon a time accepted the output of the VET system or ignored it; that is, they either accepted the product of the traditional apprenticeships or didn't participate in the system. Employers are increasingly specifying what they want from the training system and what the standards required in VET ought to be. They are also specifying assessment criteria and demanding flexibility in the times when they wish training to be undertaken. And if the requirements aren't met, then under user-choice arrangements employers will go elsewhere. To deal with international competition, leading economies around the world are developing the VET system as an essential component in education and training reforms. If we in Australia don't do the same thing, we will be left out of the game.

The impact of outsourcing functions traditionally undertaken by individual employers is also important. Training in a diverse spread of activities would previously have been undertaken in-house. Many of those functions are now being outsourced. In the future, the availability of a pool of appropriately skilled people will depend on the quality of the outsourcing. Professional service organisations which have been operating in the market place for a long period of time have been major training providers in their own right and will continue to be in the future. The challenge, I believe, will be whether the labour hire companies take up the challenge of undertaking training to provide the pool of employees required for outsourcing or whether they will poach appropriately trained employees from elsewhere. At the end of the day, employers won't continue to train if they're becoming a training provider for another employer. Thus outsourcing of activities is an important challenge for us all and one that should not be ignored.

I want to turn to some of the predicted trends in VET. In our view, the further integration of the Australian economy into the world market will have an impact on what we do and how we do it within Australia, and have an equally important impact on the development of skills within the Australian economy. Currently, we are seeing major growth in skilled jobs and occupations requiring recognised qualifications. I think now more than ever, employers are demanding appropriately recognised qualifications of their employees and will continue to do so. I expect the demand for VET to continue to grow, a situation which will put pressure on both employers and training providers, as well as on governments as major contributors to the current VET system. An imbalance may emerge between VET supply and demand and, as I have already indicated, we are already seeing some signs of skill shortages and will need to address those skill shortages.

I would like to look now at what the VET system offers to industry generally: it provides for an enhanced skills base; it provides a basis for getting much greater productivity gains than have traditionally been available; it provides much greater recruitment opportunities; it improves the bottom line for businesses. I think it is important that we understand that an investment in skills training by a business will improve the business. Businesses with an adequate skills base are able to be flexible and adaptable to change within the workplace. If people have an appropriate skill base and if they've got the industry-recognised qualifications, then businesses will be in a position to quickly adapt to changing circumstances and thereby increase the competitiveness of enterprises both domestically and internationally. VET is part of the core business operations of many of our most successful businesses.

Currently, about $2.5 billion is spent on training by employers if we exclude wage costs for the time employees spend in training. This is on top of the $3.3 to $3.5 billion being spent by governments (Commonwealth and State and Territory) on VET. So there are very significant contributions being made both by employers and by governments in relation to VET. I believe that the contribution made by employers is often overlooked. People think our VET system is largely government-funded. A $2.5 billion contribution on top of the very major contribution of wages and salaries paid while people are undertaking training, means that the contribution of employers at the present time well exceeds the contribution of government. Industry and government need to contribute equally to the skilling of Australia. It's not a debate about who carries which share of the burden; it's a recognition that industry and government share the responsibility for VET.

What sort of a VET system does industry want? It wants one that is simple, flexible and responsive. Responsive to the needs of employers, but also including the meaningful involvement of employers in the system. Recently we have seen much greater involvement by employers in the development of training packages and therefore much greater ownership in terms of the VET offering that has been put forward by both public and private providers. For some people in the past, participation in the VET system has just been too hard. In the past there have been too many hurdles. In particular, if you operated across State and Territory borders, getting recognition of the qualifications undertaken in one State by another State was a burden that many employers felt too hard. What we want is a system that is responsive to the needs of employers but takes out much of the bureaucracy. It's not about taking away all the quality-control mechanisms appropriate for the system, but we want to remove those barriers which prevent employers from participating. There needs to be an agreed national framework for training and qualification outcomes. The development of the National Training Framework goes a long way to providing the structure or the underpinning for that agreed national framework as will the full introduction of user choice. User choice, more than any other initiative I think, has driven and will continue to drive reform in terms of VET. User choice is not about destroying the public provider. It's about making the TAFE system more responsive to the needs of its clients and if it doesn't want to be responsive to the needs of its clients, then user choice provides those clients with the opportunity to go elsewhere. We have already seen TAFE colleges from one State offering product in another State. That's not an indication of non-responsiveness. User choice provides opportunities for private providers, but it also provides opportunities for public providers to compete across markets and compete against each other and we believe this will produce some substantial outcomes.

Where do we go to from here? I think we need to recognise that there will be a demand on government for an increase in investment in VET and a demand on employers collectively to invest in VET, and we would welcome that investment. We need to improve the labour market information available to people to help with career choice and recruitment advice. Many of those providing career advice in our schools at the present time are teachers available at the time. They know little about the career opportunities available to their students and often steer those students down very narrow paths. When you don't have people with appropriate skills and qualifications to provide career advice, then the best career advice is not provided. We do need to improve the labour market information available to our schools and we need to improve the training that's available to teachers in our schools to ensure that career choice and recruitment opportunities are available to students and the linkages between school and work are enhanced.

Meeting employee training requirements

Bill Mansfield

Introduction

The Australian union movement has been an active participant in the efforts over the last decade to ensure that the vocational educational and training (VET) system meets the needs of employees, their enterprises and the broader economy.

Laurie Carmichael, a senior officer of the Metalworkers' Union and subsequently of the Australian Council of Trade Unions (ACTU), made an outstanding contribution to the reform process and the development of a new framework for vocational training which overcame many of the limitations which existed in the past. Bill Kelty, Secretary of the ACTU, was instrumental in expanding the traineeships system which, until his intervention, had been limping along with only small numbers of participants outside the traditional training area.

The work of the union movement has taken place alongside that of employers, governments and providers, all of whom were active participants in the reform process. To a significant extent, the objectives of all of those involved were similar, and the long-term commitment to a partnership to develop the vocational training system has, with some exceptions, been continued regardless of the government in office.

The factors which have led unions in all occupational areas to include vocational training as a priority issue include recognition of the economic and social changes currently impacting on Australian workplaces.

These include:

- the growth of global markets
- increasing international competition
- changes in the way work is organised and managed
- the increasing importance of service and knowledge-based industries

The Organisation for Economic Cooperation and Development (OECD) has stated the importance of education and training clearly in its 1996 report *Technology, productivity and job creation* when it observed that:

> *Skills and the ability to utilise them are major determinations of growth and competitiveness for firms and their employees, and for economies. They will become more important in the future as economies are more strongly dependent on the production, distribution and use of knowledge than ever before.*

Value to the employee

The broad factors affecting the national economy are understood in terms of the need for training reform. However, the value of skills development to the individual employee is also significant.

Studies undertaken in Australia and overseas have reached the clear conclusion that the level of job security and the incomes received by employees are directly linked to the vocational training received/competencies acquired through participation in skill development. In a recent OECD report, the correlation between education and training opportunity and employment security was clearly established. The report showed that in Australia for young people between the age of 20 and 24, the unemployment rate related to education qualifications was:

- below upper secondary education – 18.4 per cent
- upper secondary – 11.1 per cent
- university level – 5.4 per cent

Along with improved job prospects, improved education and training opportunities also offer higher levels of income, which, when translated into a working lifetime amounts on average to hundreds of thousands of dollars. The OECD report also shows the differences between remuneration of workers 25–64 years of age in Australia by level of educational attainment. When compared to the average annual earnings of a male who has completed upper secondary education, the results are:

- 10 per cent less for those who have only completed lower secondary schooling
- a premium of 40 per cent more for tertiary completion
- 18 per cent more for those completing formal, non-university tertiary education and training

The results for women indicate greater differentials.

These facts reveal the effect of better education and training opportunities on jobs and income and clearly establish the importance of training opportunities linked to career structures to enable workers to maximise their potential contribution to the enterprise and obtain improved personal benefits.

In addition to the significance of training opportunities, an important conclusion from a professional survey of workers and union members undertaken by the Labor Council of NSW in 1996 was that the second most important issue (behind wages/salaries) where unions 'should do more' was in the area of career opportunities.

Unions have argued that access to vocational training and career development throughout a working liretime should be a right associated with employment. This 'right' should stand alongside others such as safe workplaces, fair wages, equal pay and no discrimination, since in many ways it is as important as these issues.

There is agreement that Australia's vocational education and training system is crucial both in terms of enterprise competitiveness and the ability of the economy to cope with the pressures of globalisation, economic growth and rapid technological change.

The key outcomes for consideration in relation to a union perspective on today's vocational training system are:

- How many individuals are involved in structured training? How do we compare internationally?
- Have we achieved a 'national system'?
- Is the system understood and accepted by those involved?
- Are the mechanisms to achieve quality and fairness in the system adequate?

Numbers in training

Overall, one of the significant outcomes from the training reform agenda has been the expansion of training into occupational areas and qualification levels where, in the past, virtually no structured training existed. Historically our training system was oriented towards Australian Qualifications Framework (AQF) level three apprenticeships, largely in the traditional blue-collar area and almost exclusively catering for young male school leavers.

Emerging important employment areas such as tourism, hospitality, clerical, information technology, retail and community services were poorly serviced by the system which had failed to evolve to cater for the service sector and skill levels above and below AQF3.

In terms of the traineeships there has been a substantial increase in the number since 1993. Having limped along for around a decade since their introduction in 1985, they took off in 1993 through the introduction of higher levels of employer incentives and the promotion of traineeships by Lindsay Fox and Bill Kelty along with industry-led Nettforce training marketing arrangements. In 1996 the number of trainees recruited exceeded the number of apprentices for the first time.

The federal government introduced a range of changes to the marketing of employment and training services early in 1998. It is not clear since then what the impact has been on traineeship numbers, however the general reforms to employment services as well as the new apprenticeship centres have been subject to widespread complaints and criticism. It would not be surprising if industry support for traineeships as expressed in the numbers being accepted is falling.

While the traineeship area has shown significant growth over recent years (from a very low base) the AQF3 traditional apprenticeship area has suffered a serious decline in new entrants. In the fourth quarter of 1998, National Centre for Vocational Education Research (NCVER) statistics show that there were 10 200 traineeship commencements compared to only 2800 AQF3 apprenticeships in the same quarter. In the same period apprenticeship commencements fell from 4750 to 4150, a decline of 12.5 per cent over a period in which the workforce overall grew by around five per cent. Over the last three financial years (1994/95 to 1996/97) the Australian intake of apprentices has declined as follows—41 750, 36 466, 35 300. The fall in intakes over the three years is greater than 15 per cent.

A number of reasons have been advanced for the decline, including structural changes to the economy, inadequate government incentives, outsourcing and labour hire companies, the cost of training and the inability of companies to commit themselves to a four-year training period. The seriousness of the decline which affects virtually all occupational areas should give cause for a significant response.

If the Australian economy is to be competitive in the future we need an adequate supply of skilled labour—the decline in current apprenticeship intake levels has to ring alarm bells for everybody involved in vocational training. The Australian National Training Authority (ANTA) has nominated this issue as one of its priorities for the forthcoming year.

International benchmarking

Looking more broadly, we should also acknowledge that on current trends our outcomes in the area of vocational training are falling behind international standards. In a recent paper prepared for ANTA by Ron Cullen, a comparison was made of Australian and international performance in the VET sector and higher education. In the higher education area Australia ranked fifth out of 22 countries assessed in terms of the proportion of the population/workforce achieving degree-level qualifications. In the vocational training area however, we ranked 15th out of the 22 countries, with the trend being towards a worsening of our position.

It should also be noted that of the 7.6 million existing employees included in the recent NCVER publication, *The outlook for training in Australia's industries*, nearly four million have no post-school qualifications. Overall, the figures (rounded off) are:

	Million
Degree or higher diploma	1 200 000
Associate diploma	280 000
Skilled vocational	1 100 000
Basic vocational	280 000
Not stated	550 000
No qualification	3 900 000

The NCVER report breaks down the aggregate figures into industry sectors and shows that some important areas; for example, transport, finance and insurance, wholesale, and retail, all fall well below the average.

Cullen suggests that the Finn and Carmichael targets are inadequate to improve our international standing and states that '. . . there is growing evidence that implementation of the Finn targets in Australia needs to be both broadened and accelerated'. He suggests that the Finn target of 60 per cent at AQF3 or above by 2001 be expanded to include Year 12 and increased to 90 per cent with a target for the age 15–64 group to be 80 per cent. If his views were to be adopted, this would represent a massive additional commitment of resources to the VET area.

Vet in schools

The final significant development in terms of participation in VET relates to VET in schools. Over recent years there has been promotion of opportunities for Year 11 and 12 students to undertake VET courses including apprenticeships leading to a recognised qualification. The total number of Year 11 and 12 students undertaking recognised VET training in 1998 is over 75 000, with New South Wales having over half that number.

In some respects the VET in Schools initiative is moving ahead of the institutional arrangements which should be in place, in particular issues related to:

- contracts of training
- remuneration in awards and agreements
- workcare coverage
- assessment and work experience arrangements

are not as clearly established as they should be. There is a need for unions, employers and governments to address these issues as a matter of priority to avoid unnecessary confusion and argument in the future.

In the area of participation in VET, the total picture appears positive, with policy-makers able to claim significant increases in numbers. However the overall figures mask areas of real concern: *10*

- in the area of numbers in traditional apprenticeships
- traineeship number trends over the course of 1998
- our standard by comparison to international benchmarks
- growth in school-based VET in relation to the institutional arrangements which should be in place

These issues need to be taken up by the industry parties and State and national bodies as matters of priority.

Have we achieved a national VET system?

One of the major concerns addressed during the period of VET reform was the need to achieve a nationally consistent VET system. Areas where inconsistencies applied in the past have included:

- qualifications awarded in one State or Territory not being recognised in another
- different levels of qualifications awarded for a particular course in different States
- the ability to deliver a single course around the country to meet the needs of a national enterprise or industry
- the ability to transfer credits from a partially completed course in one State to a provider in another

As a general statement we have, in my view, gone a long way towards achieving a nationally consistent system.

The essential components of the National Training Framework—training packages and the Australian Recognition Framework—are now recognised as key features, if not yet fully established features, of the VET landscape. The Australian Recognition Framework has been operating across Australia for almost a full year and has passed the halfway mark in its official transition period. Much has been achieved during that time in relation to the changeover to the new registration arrangements and the move to more robust, industry-driven audit arrangements.

The training package concept is also becoming better established, with good progress made in the development and endorsement of training packages—over 20 industry sectors are now covered by training package qualifications and many more are under development or nearing completion. By the end of the year, training package qualifications will be available covering about 50 per cent of the workforce.

Nevertheless, industry has some concerns about whether the promises of a streamlined and responsive system of national recognition, together with a more flexible industry-driven approach to training and assessment, will achieve the goals that have been set. One area of concern for industry in relation to the new recognition arrangements is whether the provider registration and quality assurance arrangements will be sufficiently robust to ensure consistently valid and reliable assessment. This is critical in underpinning the portability of outcomes.

Industry also stands to benefit from the mutual recognition provisions now in place across all States and Territories. However, the promise of a streamlined system is yet to be fully demonstrated, and in many cases is being frustrated by additional regulations imposed by individual States and Territories, which in some cases can be traced to transitional arrangements put in place pending necessary legislative change. In others, they result from difficulties in reaching agreement on the streamlining of industrial and regulatory frameworks for the New Apprenticeships pathways. More commonly, however, the problems can be traced to the decision by State and Territories to introduce a separate funding/approval layer for apprenticeships and traineeships. This means that training providers need to apply separately to each State and Territory for approval to deliver such training. These arrangements fall outside the scope of the

Australian Recognition Framework and are creating real problems for industry and training organisations seeking to utilise the promised flexibilities of the new system.

When it comes to the use of training packages, new barriers also seem to have been introduced at the local implementation level in many States and Territories. Thus, even where the training package content has been signed off by local industry training advisory body representatives and nationally endorsed, some States and Territories are requiring a further consultative phase prior to the training package being released for use by local providers. Furthermore, legislative provisions are being applied in some jurisdictions to prevent the use of training packages for apprenticeships and traineeships. Some of these difficulties arise from issues related to award coverage yet to be addressed. However, it appears that difficulties result from converting a curriculum-based course to the more flexible approach inherent in training packages.

ANTA is working with the States and Territories on solutions to these problems, as well as working to ensure that the training packages are of high quality.

Is the system understood and accepted?

In any reform process there is a need to ensure that the end-users are supportive of the direction of change and understand the system. As a general comment it should be acknowledged that VET reform has not been marked by easily understood concepts and frameworks. It is clear that many employers are not comfortable in their understanding of the VET system. During the recent ANTA conference on developing a training culture in Australia, numerous expressions came from the floor regarding the complexity of some aspects of the system. The ANTA Board has acknowledged that this issue is causing problems and will be taking action to address the matter. In my view we need to acknowledge that there is a need for greater stability in the VET system, and that changes which are introduced by those closely involved often serve to further confuse those in industry and the providers who are trying to make it work. One response to the degree of confusion and associated complexity of the system is to produce more lengthy information kits to explain it. These are of course worthwhile, but as a general statement, if the VET system cannot be explained in no more that 20 pages it is probably too complex. In the next few years we should try to avoid further significant changes to the framework currently in place and focus our attention on getting it working effectively for employers and employees.

Mechanisms for quality and equity

In the case of quality assurance we need a VET system respected by industry because its outcomes are of a high standard.

At the present time we have a system of provider registration, user choice, and mutual recognition under the Australian Recognition Framework. In part the system allows an enterprise to register as a registered training organisation (RTO) and deliver its own training. Registration as a training provider requires an organisation to operate in accordance with the Australian Recognition Framework. The aim of the framework is to ensure that RTOs provide high quality products and services.

The core standards essentially require RTOs to follow national principles for registration and mutual recognition, have a commitment to access and equity, demonstrate a focus on quality, agree to external monitoring and audit and have sound financial, administrative records management systems.

Once registered, RTOs must continually self-assess and self-evaluate. It is proposed that they will also be audited at least once during each registration cycle by the State or Territory training authority that registered them, usually with industry participation. RTOs can become quality endorsed by meeting the national standards for registration as a training organisation to self-manage training recognition. A quality-endorsed RTO can be authorised by its recognition authority to expand into new training package areas and/or accredit its own courses where training packages have not been developed. This is a major delegation of the powers of State or Territory training authorities. The registration of a training organisation by one State and Territory training authority will be recognised by all other State training authorities. That is, the RTO is recognised nationally and can operate throughout Australia (within the scope of its original registration) without being further registered, and without paying extra fees.

Industry has concerns that the implementation of provider registration needs to have high regard for quality and consistency issues. If it fails to deliver acceptable outcomes in these areas, the portability of outcomes and the respect given to VET will be at risk. Industry, including industry training advisory bodies (ITABs), needs to be involved in the RTO quality assurance arrangements to provide reassurance that the VET system continues to deliver quality outcomes. There is serious concern that if industry is excluded from the process, inadequate attention and importance will be accorded to this issue.

A further area of concern to unions relates to the implementation of the model training agreements for New Apprenticeships by the States and Territories. In May 1997 the Ministerial Council agreed to the concept of a model training agreement. This agreement enables data to be gathered in a manner consistent with the agreed national standards and it also provides for a nationally consistent approach to the relationship between employers and their apprentices/trainees. Union members have serious concerns that implementation of the model training agreement has not been consistent with 'good practice' principles recognised by ministers. Specifically, union concerns are that those aspects of the model training agreement which provide the basis for dispute-settling, discipline, suspension and termination of the agreement, are not being adopted by all jurisdictions in accordance with the 'good practice' principles. States/Territories should ensure that their legislation and adoption of training agreements meet the standards agreed in the 'good practice' principles.

In regard to equity there have been mixed results over recent years. In significant ways the reform process has been positive in terms of improving equity in the VET system. By way of example, women have been minority participants in the traditional apprenticeship system but are now a majority in traineeship placements and also have significant involvement in non-traditional, high-level VET courses.

In other areas however, we are not progressing at an adequate rate. In areas such as disabled and indigenous people's access to VET, we have not achieved sufficient improvement over the course of the period of VET reform. Enough reports which define the problem have been produced. We need now to focus our considerable resources on the practical initiatives which can improve our performance in the areas of equity mentioned above. This issue is also one which the ANTA Board will have as a continuing priority in 1998–99.

Conclusion

Overall the reforms to the VET system are regarded positively by the employee side of industry. The potential for improvement within the system is however significant. We need to continue our efforts to achieve:

- greater numbers of new entrants to VET, both school leavers and existing employees
- consolidation of a working national system
- industry involvement in the quality assurance area
- greater attention to the need to 'simplify' the system for end-users
- more effective and practical action to achieve better equity outcomes

Training challenges in Australia's manufacturing industries

Richard Jenkins

I HAVE BEEN ASKED to give you an industry perspective on the changing world of work. It was suggested to me that I look particularly at areas of membership of the Australian Industry Group (AIG) with an emphasis on our manufacturing membership.

In order to place my remarks in context I would like to firstly outline the nature of the Australian Industry Group, a relatively new organisation formed in July 1998 from a merger of the Metal Trades Industry Association of Australia (MTIA) and the Australian Chamber of Manufactures (ACM).

The AIG is a representative organisation of employers covering approximately 11 500 members. These members employ over a million Australians and generate $100 billion of sales and $25 billion of export income. We are Australia's largest employer organisation with 17 Australian and international offices and membership coverage across most sectors of the economy, but especially in manufacturing, construction, and information technology. Our manufacturing membership includes the metal and engineering, food, printing, textile clothing and footwear, and rubber plastics and cable-making industries.

Globalisation

Both of our predecessor organisations, MTIA and ACM, were very active in training reform, an involvement which will be continued by the Australian Industry Group. A theme that will be very prominent in our involvement in training will be the concept that training reforms cannot be isolated from other major economic and social policy developments. Of foremost significance here is the notion of globalisation. Globalisation is a term that has tended to lose some of its impact because it has been used so often. But what does globalisation really mean?

Information collected from the Australian Industry Group quarterly survey of members shows that even for those companies primarily producing for the domestic market, over half still rely on overseas suppliers for intermediate goods. We are well and truly tied into the global economy for both the goods we need to manufacture for sale domestically and for export. This trend is expected to continue.

What are we facing when we consider the world of work for the trade-exposed sector of the Australian economy, especially our manufacturing industries? The answer is that most of world manufacturing is a world of excess capacity, constant price cuts and movement of high technology to low-cost countries. Another example of the impact of this trend towards globalisation is the growth in import competition in the metal and engineering industry.

There has been an extraordinary growth in import competition since the late 1970s. It is important to note the sharp growth in 1988 when training reforms were first being strongly advocated in the metal industry. It was no coincidence that the industry parties believed that something needed to be done to improve industry competitiveness. The growth in import competition has been matched by a growth in exports by the manufacturing industry. The majority of AIG members now either directly export product or supply a company that exports.

I would like to emphasise that training reform was and is economically driven, although I recognise the existence of other motivations and dimensions to the various reforms. However, in manufacturing and in most other industries, these reforms are dependent on the basic economics involved in living in a globally engaged economy.

Employment

It is important to consider also the employment environment for manufacturing. In this context I will rely on the manufacturing section in the National Centre for Vocational Education Research (NCVER) book, *The outlook for training in Australia's industries*.

The following are the main points of the NCVER publication:

- The declining proportion of overall jobs in manufacturing is due to the faster rate of growth in services.
- The total fall in manufacturing jobs is only three per cent.
- Manufacturing is still the second-largest employment sector in Australia with 1.1 million employees.
- Manufacturing employment has shown positive growth since the early 1990s.
- Manufacturing is the second-largest employer of young people in the 16–24-year-old-age bracket and the largest employer of people over 24 years.
- Manufacturing ranks third as a destination for VET graduates.
- 90 per cent of manufacturing employees are full time.
- The age profile of the manufacturing workforce is not significantly different from that of the general workforce.

Also relevant is the change that has occurred in the industrial environment in manufacturing. My comments are taken from a recent speech by the AIG's Director of Industrial Relations, Roger Boland, commenting on progress in enterprise bargaining in industry. Many of his comments are directly relevant to the world of education and training.

His first point was that enterprise bargaining is creating in many ways what it was meant to do; that is, an environment where enterprises are encouraged to be different—with enterprises not all moving or changing at the same time or in the same manner.

Many employers are making progress usually in a manner that involves workforce development of some type. However, overall we appear to be losing one of our systemic drivers of training change at the enterprise level, and this is the industrial relations-related impetus to training reforms. While the merits of linking industrial relations reform to training reform has been strongly debated, it is consistently acknowledged that the previous award restructuring pressures on training reforms were significant.

The point is that the award restructuring pressure on training reform at the enterprise level is not being replaced by pressures coming from the new paradigm of enterprise bargaining. According to research by the Australian Centre for Industrial Relations Research and Training (ACIRRT), enterprise bargaining is narrowing to more traditional and immediate concerns.

Roger Boland identified training as one of the areas most neglected in enterprise bargaining. While 46 per cent of agreements in ACIRRT's Adam Enterprise Bargaining database have training provisions, these are: 'Little more than a broad commitment to training or an intention to investigate training options during the life of the agreement'. This accords with our experience of enterprise bargaining. In many ways it can be said that those opposed to linking industrial relations with training have now achieved their objective. My question is however: Have we achieved a suitable driver of change to replace that previously provided by award restructuring and industrial relations?

Part of the answer relates to the tremendous driving force of globalisation and the corresponding pressures for efficiencies and productivity that the globalisation pressure creates.

New Apprenticeships

The other driver that has been established is the raft of reforms now known generally as New Apprenticeships. These reforms were established with the support of industry, including that of the Australian Industry Group and its predecessor organisations. Many of the reforms such as training packages and the Australian Recognition Framework have clearly placed industry needs as the central factor in their operation. However a number of important conditions currently exist which our organisation believes must be addressed. These are:

- the drop-off in commencements in traditional apprenticeships
- skill shortages

- continued complaints about the complexity of the training system
- Australia's competitiveness ranking

These concerns have resulted in the AIG commissioning a major study into the training needs of Australian industry. However before discussing this study I would like to elaborate on each area of concern.

The manufacturing and some other traditional apprenticeship-employing industries have experienced a serious decline in the number of apprenticeship commencements. This has been in part compensated by the growth in traineeships. Furthermore, the extent of the decline is debated by NCVER among others, because of possible aberrations and peculiarities in the statistics. However, the evidence of a major decline is sufficient to warrant real concern, a view also held by the Australian National Training Authority (ANTA), the Victorian Engineering Skills Training Board and the Queensland Government, all of whom commissioned studies into the barriers to apprenticeship training and/or skill shortages. The findings of these studies—that problems exist in both the supply and demand sides of apprentices and tradespersons—are now well known. All of the studies I have just mentioned were basically qualitative except the Deborah Wilson study—*Engineering trade skills shortages in Queensland*—which included some quantitative research. The interesting aspect is how remarkably similar all of the reports were in the identification of the issues causing employers to be reluctant to recruit, and also on the image of manufacturing among young people. This is a real challenge for those of us in manufacturing.

I noted that in the NCVER book I referred to earlier, the section on manufacturing includes an analysis of the decline in trade positions and an increase in demand for technicians and trade assistants. However no comment is made on whether the reduction is largely a supply issue; that is, insufficient tradespersons being trained with employers or whether a more structural change in demand is occurring.

Turning now to skill shortages, the AIG believes that skill shortages in manufacturing-related occupations exist. The study for the Queensland Government completed in 1998 found specific skill shortages in Queensland.

Similar findings have been repeated in seminars conducted by our association, although the shortages expressed are most often for *experienced or highly skilled tradespersons,* a conclusion also reached by Department of Employment, Education, Training and Youth Affairs (DEETYA) in the June 1998 release of *Skills in Australia—Trends and shortages.* It is this conundrum that is of real concern to the Australian Industry Group. We have a downturn in apprentice training, what seems to be a mild shortage of base tradespersons with a large number of potential and unfilled vacancies at the high skill end of the spectrum. The question is: does this represent work, and hence competitiveness that we as a country and as an industry are missing out on?

The third area of concern is the complexity of the system, although I believe that concepts such as training packages are a simplification compared to what we had earlier. The evidence now from our own studies and experiences and from many other organisations is that we now seem to have a training system that the average employer, employee or student only understands with the help of a broker of some type. In this context, there are two issues I wish to raise. Firstly, the complexity that employers perceive in the system acts to reduce support for many changes that are in their interest. Secondly, the difficulties experienced in understanding act counter-productively in a demand-driven system where immediate feedback is essential.

The last area of concern I mentioned was Australia's competitiveness. ANTA is currently researching the effect of qualifications on competitiveness through Ron Cullen and his Qualifications Profile Projection Model (QPPM). And the results of this research *do* deserve consideration. We at the AIG also have concerns which originated earlier in 1998 when ongoing discussions and deliberations were held in the then MTIA branch councils on the results of the August 1997 *Make or break* industry policy report by the Economist Intelligence Unit. That report identified our skilled workforce as one of the advantages for Australia when investment decisions were being considered. Our branch councillors expressed concerns based on their own commercial dealings that, while this advantage still existed, it was, nevertheless being eroded. This view led to the Australian Industry Group commissioning the Allen Consulting Group to conduct a major study into the training needs of Australian industry. The study is due to be completed by November 1998 and we anticipate will examine the relationship between training and enterprise decision-making.

New paradigms for training and learning work skills

Sandra Yates

I AM DELIGHTED TO be with you today—I guess my role as Chair of the Technical and Further Education (TAFE) Board in New South Wales is what gives me legitimacy in such an august gathering, but I think I'm really here because of my experience as Chair of Saatchi & Saatchi.

Job insecurity is a key issue in modern Australia. For older Australians—particularly for men aged 40 to 54—it's their most important issue. Younger Australians have grown up with the notion that they will change jobs and careers often during the course of their working lives. They're also far more tuned in to the notion of change as a constant, positive thing, whereas the older you are, the more change looms as a source of depression, rather than optimism.

The executive search people tell us that a young adult can expect to hold seven major jobs during the course of their working life—not all necessarily with different employers—and that they can expect to be fired or retrenched from at least one of them.

And that's if you're a bloke!

If you're a woman, and you have to overlay this scenario with time out for child-bearing and raising, and the possibility of elder care later on, then you're looking at an extremely fragmented working life.

The loss of the social compact between employer and employee has meant that a job for life is now nothing but a quaint memory for those of us over 40, and a source of wonderment for young adults that such a thing ever existed. The resultant loss of social cohesion is an outcome we will all be living with for the foreseeable future.

You could argue that 90 per cent of Australians who want a job have one, but in the research we conducted in the run-up to the election campaign, it became apparent that job insecurity was either the number one or number two concern of most voters.

And that insecurity exists across the board. The average tenure of a chief executive officer of a major corporation these days is three to five years, so their sense of insecurity is just as profound as a bank teller or a process worker.

In real terms, of course, there are two groups who are significantly over-represented in the ranks of those who have been disadvantaged by the impact of globalisation and the rise of economic rationalism.

The first is middle-aged men who have been retrenched. There is a significant amount of under-employment, as well as unemployment in this group, most of it hidden among these white collar workers, who lost their jobs and joined the ranks of the single 'consultants', who now eke out a precarious existence, with very little security of income.

The drift away from manufacturing industries has disproportionately affected blue-collar workers in this age group, and of course the problem is compounded even further for those who live in rural and regional Australia.

Unfortunately, many men in this age group tend to be change-resistant, and risk-averse. They are reluctant to retrain and often not prepared to move to areas where they might stand a better chance of finding employment.

The second alienated group is of course young people. The high rate of unemployment among this group has been of concern for many years now. In recent times, the Dusseldorp Skills Forum has, perhaps in their highlighting of the 15 per cent of young people who are neither in full-time education nor in full-time work, published the most interesting new work.[1]

This group exists at the margins—drifting in and out of part-time work—often engaging in high-risk behaviours. They are a shadowy target, characteristically elusive and cynical. In some ways, they are the antithesis of the older male group. For these young people, change is a constant, with as many as 30 per cent of 15–19 year olds changing their main activity at least once in any six-month period, with significant movements occurring in and out of the labour force, and between unemployment and other activities. These problems are significantly increased by the problems of isolation experienced by young people in rural and remote areas of Australia. Our unenviably high record of youth suicide rates is a poignant reminder of our singular lack of success in tackling these issues.

It's not all doom and gloom out there: the casualisation of the workforce has really benefitted women, particularly the group Bill Clinton christened 'the soccer moms'—women who often work part time to supplement the family income, but who are not particularly career-minded, and whose children are the primary focus of their lives.

These women really enjoy part-time work, and they are a great target group for technical and further education, because their skills usually need updating before they go back to work, and the opportunities for part-time work in financial services, retail, hospitality and tourism are really attractive to them. Unlike their more career-minded sisters, this group is less worried about opportunities for career development—they would rather work for companies with family-friendly work practices.

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[1] Dusseldorp Skills Forum 1998, *Australia's youth: Reality and risk*, Dusseldorp Skills Forum, Sydney.

The feminisation of the workforce has been one of the defining characteristics of the Australian workforce since the 1970s, and this in itself has created job opportunities for entrepreneurs. The interesting corollary of the feminisation of the workforce seems to be the de-feminisation of housework. Phil Ruthven, from Ibis Information Services, tells us that housework will be the growth industry of the twenty-first century, as families increasingly outsource things like ironing, cleaning, gardening, and pet care.

The entrepreneurs taking up these small business opportunities, from my empirical observation at least, tend to be newly arrived from other countries—not women. One of the challenges for TAFE is how we provide training services for this group. Most of them are operating within the black economy, and as the goods and services tax (GST) catches up with them, and they are forced to regularise their business practices, they are going to need multi-skilling in things like small business administration, and computer training.

The changes in work patterns that have emerged particularly over the last decade are profound and long-lasting. The decline in job opportunities for blue-collar, and older male workers, the feminisation of the workforce, the casualisation of the workforce, and a youth unemployment rate stubbornly stuck around the 30 per cent level, seem now to be permanent features of the employment landscape.

So what is the solution? The impact of these changes on the social fabric of Australia has, in many cases, been quite destructive. The very nature of work itself seems to have changed forever, and as so much of what constitutes our sense of identity and self-worth is tied up in the work we do (and that's particularly true for men), then maybe the time is ripe for a major, qualitative research project that could be used by social planners and policy-makers to help them address these very complex issues.

I say qualitative research, because I think we need to understand what people are thinking and feeling on these issues, so that we can understand what we need to do to develop new paradigms which can engender broad social support, and thus facilitate their adaptation into a policy framework. For instance, I said earlier that older men seem to be resistant to retraining, but they are among the most affected of those displaced by globalisation, so what are the levers that might make them change their mind?

How do we encourage older Australians to stay in the workforce? At the beginning of the twentieth century, an Australian's average life expectancy was 53. By the year 2000 it will be 80. So at the turn of the last century, one wife and one job could quite reasonably see you out. Australia has been a world pioneer in forcing people to self-fund their own retirements, but as people live longer, we are going to have to find ways to keep them working longer, and that means we are going to have to find ways to change employers' attitudes to the elderly.

If young people are dropping out of school, and are not in work or further training, what are the levers that might persuade them back to either? Maybe introducing vocational education earlier in schools might help, but we have to ensure that TAFE doesn't become a dumping ground for troubled kids, and that we provide genuine job outcomes. Qualitative research might also help us understand the motivations of young, blue-collar men. What do we need to do to steer them towards training in areas where there are jobs—property and business services, hospitality, tourism, etc.?

You may have seen an article in the *Sydney Morning Herald*, entitled 'Marginal men' which really ties a lot of these issues together, and paints a chilling picture of their impact on our social fabric.

The article pointed out that in the decade between 1986 and 1996 there had been a substantial increase in the number of unattached males. For men aged 30 to 34, the percentage unpartnered increased from 29 to 37, while the increase for 35–39-year-olds was from 21 to 29 per cent. And it's mainly poorer men who are being left out. In 1996, only half of men aged 30 to 34 earning less than $15 600 were in couple relationships, compared with 76 per cent of men earning $52 000 or more. And these are not insignificant numbers: more than half a million men aged 25 to 44 earned less than $15 600. A generation ago these men would have been marrying and raising families; today many of them are assigned to the social scrap heap.

There are pockets of male unemployment now as high as 50 or 60 per cent, much of it long term and many of these men have succumbed to apathy and despair. They are not going to come to us; we are going to have to seek them out, and try to understand what sort of training might best equip them to re-enter the world of work.

But perhaps the issue is much broader than that—maybe the issue is that if work is no longer central to the lives of both older and younger Australians, how are we to educate them for whatever will replace it? Do we educate people for leisure, do we educate people for roles in the not-for-profit sector? Because it seems to me that we are still all clinging to the notion that work *must* be central to people's lives, and yet business has already demonstrated in the most brutal of ways that it has no use for older or younger workers.

It would be helpful to understand what might incentivise employers to hire people from what they regard as less attractive demographics. The answer will be money, of course, it always is, but in what form and how much? And is that what we are really reduced to—bribing industry to provide jobs in return for social cohesion? Is that the best we can hope for?

Maybe rather than incentivising employers, we should look at de-incentivising employers; that is, before companies are able to retrench workers, they should be obliged to provide job retraining to a certain value.

There were 3.3 million retrenchments between 1986 and 1997 and in recent times, we are creating new jobs at the rate of around 100 000 a year, a figure nowhere near replacement rate for the jobs that have been lost.

So whatever the point of globalisation, while companies may well have become more competitive and efficient, and hence more profitable, virtually none of that extra money seems to be going towards job creation in the private sector.

If we believe that government has a role to play in preserving and strengthening social cohesion, then perhaps the public sector is going to have to play a more active role in job creation. Perhaps we might even consider affirmative action for younger and older workers in the public sector.

It seems to me that there needs to be a forthright dialogue between business and government on their plans for job creation. At the recent election, there is no doubt that the loss of infrastructure in the bush caused a significant backlash against the government in rural areas. Government has now had brought home to it very painfully that the actions of business can cost them votes.

This lesson will not be lost on them.

It seems to me in Australia today that there is no more important task than job creation. The leadership of all our important communities—education, the vocational educational training sector, immigration, social services, treasury, employer organisations, unions and the Australian Council of Social Services must struggle to achieve a consensus that can transcend politics, and begin to define the nature of work in the new millennium.

I don't underestimate the magnitude of the task—and the good news is that they'll need an awful lot of research to help them—I wish you well in that endeavour.

Research and development: Beyond the bottom line

Ken Boston

TWO WEEKS AGO I received the volume *The outlook for training in Australia's industries,* being the papers for this conference.

It looks like a house brick. And being a conscientious fellow, I have carted it about the country for the past fortnight attempting to digest its messages in aircraft, airport lounges, hotel rooms and in those other precious moments when one gets time actually to read. If the size, weight and detail of the volume are any guide, research in vocational education and training (VET) has accumulated a great deal of knowledge since 1993, since it was in that year, you might recall that the book *No small change* was published. This report proposed a national research development strategy for VET in Australia. In describing the shortcomings of research in VET, *No small change* observed:

> *. . . the major challenge for many organisations is the training of their workforce. However, little is known about vocational education and training. This has meant that few of the current reforms of vocational education and training are based on evidence of their desirability.*

In 1993, something about which 'little is known' presented an immediate challenge. The word 'desirability' also lent an ambiguous air. It posed the question of exactly what research in VET should be about, and to whom such research and reform needs to be desirable: to governments, to researchers, to business, to the supply side, to the demand side, to the community?

What then are some of the things about VET and about the desirability of VET reform that we now know more about, as a result of the five-year research effort since the publication of *No small change?* Has VET become more fulsome and attractive and hence more desirable with the passage of five years? Where we knew little, do we now know much?

We find a good overview of the situation when we turn to the National Centre for Vocational Education Research (NCVER) publication *Readings in Australian vocational education and training research.* This is the set of papers arising from the development of Australia's national VET research and evaluation strategy in 1997. 'Readings' is itself a pretty toffy word, which suggests that the research area has really built up a head of steam. *Readings* is for fellow researchers—for all of us supply-siders who make up the great majority of people here today.

And *Readings in Australian vocational education and training research* does not disappoint. It contains much for the connoisseur of the problems associated with the provision of VET within our present social and economic context, the solution of which requires a strong underpinning of research. Many of the papers illustrate with breadth, depth and scholarship, the VET sector's persistent attempts to ascertain the real desires of their sometimes enigmatic industry and business customers, and to woo them accordingly. The volume of *Readings* is the score of the VET sector's siren song to industry, and it sets out the many blandishments we have to offer: workplace learning, flexible delivery, competency-based assessment, user choice, quality assurance, VET in schools, training markets. You know them so well you can say them in your sleep.

Now that, of course, was 1997 and another long 12 months has passed.

And has our campaign been successful? The answer is no. Here and there around the country there has been mild flirtation, but nationally, business investment in training has continued to decline, despite all our attempts to stimulate and satisfy desire.

The 1998 conference volume, *The outlook for training in Australia's industries,* signals a pretty marked change in strategy. Research in VET has honed in on hard economic data. The house brick is not a song to appeal to the emotions and sensitivities of a Ulysses of business; it is a series of very informed analyses, statements and conclusions about the labour market economy which are aimed directly at his financial bottom line.

The institutions sponsoring research in VET, and the researchers themselves are building a rational, financial and economic case for the legitimacy of VET to convince government, and especially business. As a bride-to-be might have displayed her dowry, recent studies and literature reviews have used the tools of economists to prove to business that training improves productivity, raises profits, secures the market position of companies, and enhances international competitiveness, individual earnings and social equity.

And I believe all that to be true, just as I believe that the establishment of a training culture is critical to the future of this nation.

The research has also identified ways in which VET can be delivered more efficiently and cost-effectively. It has studied the macro and micro infrastructures of training: the training market, user choice and resource sharing. The strategy is to prove to business, on the basis of hard research evidence, that profits are to be made from increased investment in education and training; and to demonstrate that researchers, like business, know about the bottom line.

Nevertheless, business and industry seem to be ignoring many of our overtures. I suspect this is because those of us on the supply side of the VET sector are more comfortable and confident talking with each other than talking with, and trying to listen to our customers. Business goes on doing what it does best regardless, in many cases, of what the VET sector thinks that it needs 'for its own good'.

Consider for a moment the current obsession we supply-siders have with that most elusive and tantalising business customer of all—*small* business. In the manner in which the Scarlet Pimpernel was pursued, the VET sector seeks small business here, we seek it there, we seek small business everywhere.

Jennifer Gibb's recent overview of Australian research in small business lists 54 publications in its bibliography—all Australian, most on small business and most published since 1995. Another recent NCVER publication *Research at a glance: Small business and vocational education and training*, excellent in its succinct and comprehensive detail, nevertheless has a tone reminiscent of the homilies boys at single-sex schools would be given by the housemaster before going off to attend the girls' school social. We are told sternly, wisely and seriously that: 'Small business doesn't like externally provided formal training but [this] doesn't mean that they don't want to participate in training!'

The publication goes on to refer to small business as 'they' and 'it'—rather as a doctor would refer to a patient when discussing an intriguing symptom with another doctor. True to this metaphor the piece concludes on a therapeutic, slightly bemused professional note:

> *The research on small business is packed with arguments and theories about what works, each claiming to have the definitive answer. In truth the small business training market is so complex and heterogeneous that every theory probably works for someone in some situations.*
>
> *The trick is to devise an approach for small business where, early in their relationship with the training system they get accurate advice on what is the right answer for them.*

Now that is common sense. It could serve as advice to all planners and providers of VET.

The problem is that VET researchers and VET providers appear to be giving the advice to each other, as if they are adults who know best, talking endlessly about the needs of children, or doctors talking about patients. It is important that we understand how irrelevant we appear in the eyes of business and industry when we do that. We are not discussing the young or the ill, but business enterprises—the primary engine of economic power and prosperity in our community. A very grown-up phenomenon indeed.

The title of this very conference, intended as an invitation and lure to business attendance, exemplifies the dilemma—'Where's your industry going?' Come, the question implies, to our conference to find the answer, as if 'you', business, didn't know.

Those from business at this conference have certainly been dished up a strong gruel of labour market economics and impressive statistics in the conference papers. There is a vast array of complex data which present formidable challenges for policy and for VET cognoscenti, and which now make the questions asked back in 1993 seem naive.

We now know that, desirable or not, reform is the permanent state of play in the VET sector, as it is in business. We have no time to wait for conventional academic research to prove or disprove its desirability. *The outlook for training in Australia's* *industries* raises questions which require policy and reform responses in terms understandable to business and industry and driven directly by their needs.

For example, what do public and private VET providers propose to do about the provision of training to accommodate the dramatic changes in the Australian labour market over the last ten years—the rise in the importance of the services sector, or the female labour market and of part-time employment across most sectors? How do VET planners and promoters intend to respond to the challenge of the communications industry, 60 per cent of whose workforce is without formal qualifications and where there is a relatively high level of employer and graduate dissatisfaction with VET? Or manufacturing, where I read most employers are, on one hand, quite satisfied with VET provision but on the other, a sizeable portion say VET is not delivering skills appropriate for their current needs. Or in the area of accommodation, cafés and restaurants which, I have read, has the second lowest credentialled workforce across all industry sectors and where New South Wales employers appear to be particularly dissatisfied with VET training.

Every chapter promotes such queries and invites rapid complex responses.

It is absolutely critical that all these highly significant and strategically important data actually take the nation somewhere, by forming an agenda for conversation and action between the supply side and the demand side. There is a real danger that the complexity, richness and fascination of the data will serve as further nutrient to stimulate the growth of the existing culture by which VET providers and VET researchers talk only to themselves, by giving the supply side so many more interesting things to make and do.

If we want business and industry as partners who really want what the VET sector has to give, and desire the knowledge which VET research has the capacity to create, then the VET sector has to be a whole lot better at listening to business, at conducting relevant and strategic research and at dispersing knowledge in a user-friendly, digestible and timely way.

Relevant, strategic, digestible and timely.

I gently take issue with what appears to be the prevailing consensus in the VET sector—that there is not enough VET research. I think there is more than enough research activity, but too little that is relevant, strategic, digestible and timely in the eyes of business and industry. For example, the overview introductory chapter in *Readings in Australian vocational education and training research* begins with the comment that, 'The first thing that will strike the reader of this volume is the almost universal demand from the various *authors* (my emphasis) for more information'.

As I said, we do not want more interesting things for the supply side to make and do, just for the sake of it. It is on the demand side where the thirst for more information must be developed.

Let me now come closer to home. The New South Wales Department of Education and Training is a large supply-side organisation and includes, amongst other responsibilities not related to VET, the Board of Adult and Community Education, TAFE NSW, and secondary schools, which are providing accredited VET for young people.

Our research needs are very clear, and crisply defined. We need to know what business wants, where it wants it, and when. We need to know what knowledge, skills and understanding best equip young people for lifelong learning and productive and satisfying careers. We need to know how the supply side and the demand side can be integrated for the benefit of the individual and the nation. We need to know how best to position ourselves within the national training market. For example, Sandra Yates, the Chair of the NSW TAFE Commission Board, spoke about the need for qualitative research on how to attract both older and younger, marginalised people into training, and how to enhance their employment prospects. We need research of the type undertaken by the NCVER to produce information to guide VET providers in improving their systems. This provides the framework for vigorous market research which is the focus of our efforts to re-invent our long and creative affair with business and industry.

Those of us who believe in research in VET, and who are actively pursuing its cause, need to take a lesson from school-related education research, which has been under attack in the United Kingdom and United States for some time for reasons which are apparent and real. Celebrated academics, government and business critics have identified its self-serving nature, its frequent lack of relevance to practice, and its tendency to allow individuals to express personal hobby horses. So much overseas research in the area of school education has been predicated on the elaborate discovery of the already known.

If the newer and urgently needed field of research in VET is to avoid the same pitfalls, and to produce outcomes which are relevant, strategic, digestible and timely, it must guard against the pursuit of knowledge for the sake of it and understand that in this game, any five-year vision bolstered by reams of definitive data might very well turn out to be smoke and mirrors. Business understands that. It has opened itself to the world of unexpected training desires and needs and so should we.

So, how can I bring all this to a close, and still have some friends left in the audience?

Four simple messages.

One, we should be really worried that there are so few people from business and industry at this conference, and we should find out the reasons and learn from them. Two, the key to the integration of the supply side and the demand side is the creation of a national training culture. That can only be built from the ground up—in the fashionable word of these times, we can't mandate it by holding national conferences on promoting the work of industry training advisory bodies (ITABs), important though such activities are. The key is grass-roots communication at the lowest level. Three, we have attempted to woo business and industry by singing our song and by hitting them with a house brick. Let us now not suppose that we will do better by spreading before them the complexity and richness of the unbounded opportunities for research now opening up before us, as a lyrebird extends its plumage. They will simply walk away.

Wherever research is done—in universities, in government agencies, by private consultants, in TAFE campuses—we must focus on research which is relevant, strategic, digestible and timely, or we will simply be ignored. And finally, let us from time to time lift our heads up from the trenches and celebrate the national importance of the enterprise in which all of us are engaged.

The vocational education and training movement of which we are a part is as central to the creation of Australia's future as is the movement towards reconciliation with Aboriginal people, and the question of whether or not Australia should be a republic, and if so, what kind. Let us be in no doubt that the movement for the creation of a national training culture stands with those other two great movements as a cornerstone on which the social and economic fabric of this nation shall be built for the next millennium.

It is a privilege to be part of it, but we cannot afford to fail.

Where the jobs are: The outlook for jobs

Chris Murphy

Introduction

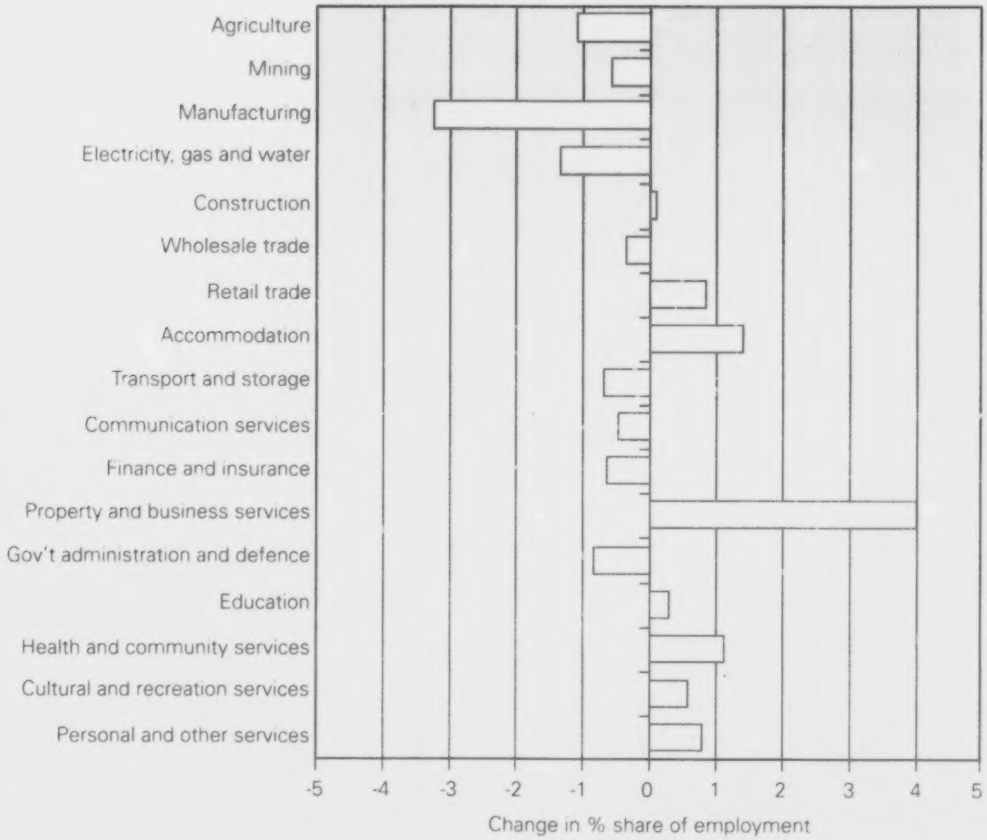
THE MIX OF jobs in Australia is continually changing, whether looked at in terms of industries or occupations. In this report it is forecast that while some past trends in the jobs mix will continue unabated, others will change, making it dangerous to simply extrapolate the future jobs mix from past trends. New factors affecting the jobs mix include the Asian crisis and the Commonwealth Government's tax package.

Figure 1 shows movements in the industry jobs mix over the last 12 years. It refers to the 18 industry divisions in the Australian Bureau of Statistics (ABS) Australian and New Zealand Standard Industry Classification (ANZSIC). In terms of industry shares of total employment, the biggest gainer of jobs has been property and business services. The biggest loser of jobs has been manufacturing. Increased import penetration has reduced its share of jobs by three percentage points.

Turning to the role of the industry mix of output, sectors that have become relatively more important in terms of both output and jobs include both property and business services and health and community services (due to ageing of the population). Sectors that have been declining in relative importance in terms of both output and jobs include agriculture (due to declining returns on world markets), manufacturing (due to increased import penetration as mentioned above), electricity, gas and water (due to greater energy conservation), and government administration and defence (due to budget cutbacks).

Industry differences in productivity growth rates have meant that output shares and jobs shares have moved in opposite directions in some industries. Some sectors have become less important in terms of jobs, despite becoming more important in terms of output. These sectors of rapid productivity growth include: mining; wholesale trade; transport and storage; finance and insurance; and communications. Other sectors with low productivity growth have become more important in terms of jobs despite becoming no more important in terms of output. These low productivity growth sectors are as follows: construction; accommodation, cafés and restaurants; retail trade; education; culture and recreation; and personal and other services.

Figure 1: Changing industry shares of employment—1985/86 to 1997/98



Thus the industry mix of jobs has been shifting towards the following industries: property and business services; health and community services; construction; accommodation, cafés and restaurants; retail trade; education; culture and recreation; and personal and other services. In the first two cases this is due to strong growth in output, while in the other cases it is due to relatively low growth in productivity. Interestingly, except for construction, these sectors with rising job shares are all service industries.

It is dangerous to simply extrapolate these trends into the future. Over the next three years, growth in jobs in both education and culture and recreation will be held back by government cutbacks. In addition, growth in jobs in retail trade will be retarded by only moderate growth in consumer spending.

These movements in the industry mix of jobs affect the occupational mix of jobs, although there are important factors to be considered. Within most industries, there has been a shift away from the lower skilled occupations towards the higher skilled occupations. This trend is reflected in the overall outlook for strong growth in managers and administrators and professionals compared with the lower skilled occupations.

Another trend within industries has been a shift from production to clerical occupations. This trend underlies the outlook for strong growth in elementary clerical, sales and service workers. Similarly, it is consistent with the outlook for stronger jobs growth in intermediate clerical, sales and service workers than in intermediate production and transport workers.

Employment in the remaining two occupational major groups—tradespersons and related workers and advanced clerical and service workers—is forecast to grow in line with total employment. However, this disguises considerable variation in jobs growth between the sub-major groups that make up these major groups.

Background to the forecasts in this paper

Econtech's employment forecasts are produced using a range of economic models and are available through a series of regular publications. This is set out in figure 2.

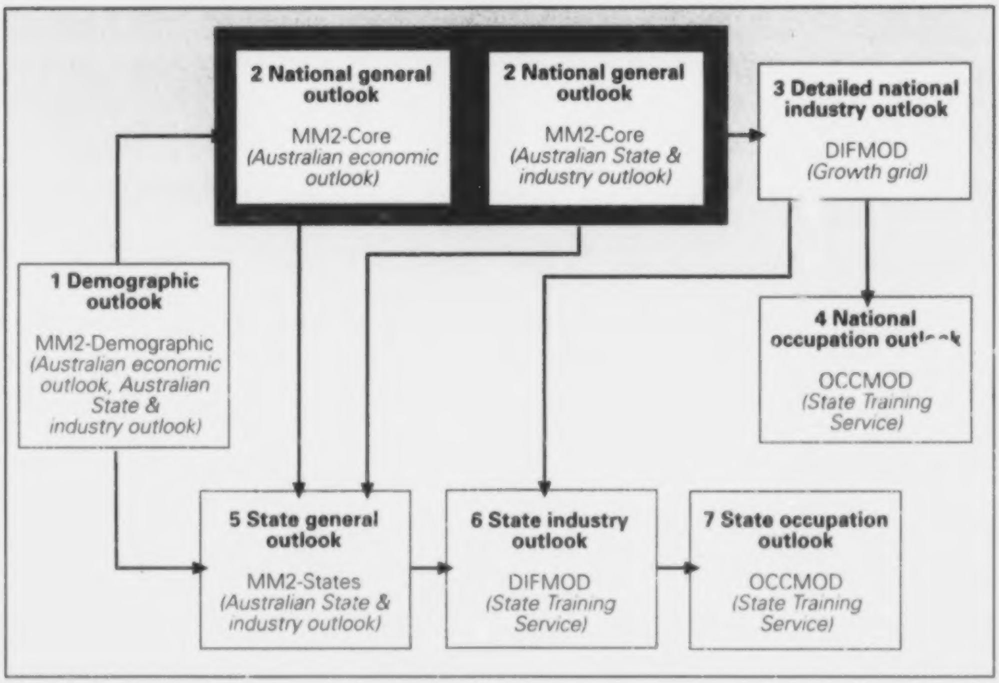
Taking our publications first, our macroeconomic forecasts, including those for total employment, appear each quarter in *Australian economic outlook*. Our quarterly *Australian State and industry outlook* provides more detail. It includes quarterly forecasts for employment in the 18 ANZSIC industry divisions and for each State and Territory. Our half-yearly publication, *The growth grid*, is even more detailed. It includes annual forecasts of employment for the 158 industries at the ANZSIC group or three-digit level. *The growth grid* is the most detailed and comprehensive industry outlook publication of its type and is used by a wide range of business and government organisations.

Figure 2 summarises the stages involved in producing the detailed forecasts for our State Training Service. The top half of this diagram covers the methodology used to generate the national employment forecasts while the bottom half covers the models used to produce equivalent forecasts at the State level. Each box in figure 2 contains a brief description of what is being forecast (bold text), the name of the model (normal text) used, and the relevant publications (parentheses).

A unique strength of Econtech's detailed employment forecasts are that they draw on a blend of ABS data sources. At the more aggregate level, data from the ABS labour force survey is used because this is available on a regular and timely basis. At the finer levels of detail, the labour force survey is badly affected by sampling error, so we use data from the 1996 Census. Econtech has developed its own matrix that uses both labour force survey and census data in mapping from employment by industry to employment by occupation. This blended approach recognises the relative strengths and weaknesses of each set of ABS data.

Throughout this paper we have concentrated on the outlook for jobs over the next three years. Our State Training Service also contains annual forecasts for a nine-year horizon.

Figure 2: Methodology for forecasting in this report


2 National general outlook
MM2-Core
(Australian economic outlook)
2 National general outlook
MM2-Core
(Australian State & industry outlook)
3 Detailed national industry outlook
DIFMOD
(Growth grid)
1 Demographic outlook
MM2-Demographic
(Australian economic outlook, Australian State & industry outlook)
4 National occupation outlook
OCCMOD
(State Training Service)
5 State general outlook
MM2-States
(Australian State & industry outlook)
6 State industry outlook
DIFMOD
(State Training Service)
7 State occupation outlook
OCCMOD
(State Training Service)

To summarise, the methodology used by Econtech to prepare its employment forecasts for its State Training Service has three key advantages:

- Full allowance is made for the differences in employment growth between States arising from the pattern of interstate migration.
- Employment is forecast 'bottom-up' from the industry level to the national level (rather than 'top-down') in a way that allows for the distinctive effects of the business cycle, the international environment and government policies on employment in different industries.
- Labour force and census data on employment are blended together optimally to produce forecasts that are based on the most up-to-date information and are also highly detailed.

General economic outlook

In the financial year 1997/98 the initial impact of the Asian crisis on Australia was more than offset by a boom in consumer spending and a high level of business and housing investment. Consequently, the economy as a whole, as measured by gross domestic product (GDP), grew by a strong 4.1 per cent.

Economic growth is forecast to slow to a more modest 2.5 per cent in 1998/99 and 1.9 per cent in 1999/2000, before recovering to firm growth from 2000/01 onwards. The main reason for this moderation in growth over the next two years is that growth in consumer spending will moderate. (Business investment will also have less of an impact on growth in 1998/99 and 1999/2000 since it is forecast to level off now that it has reached a high level.)

Government consumption spending is important to industries such as government administration and defence; education; health and community services; and personal and other services. In recent years, growth in government consumption has been weak due to government cutbacks. However, now that the budget is back in underlying surplus, these cutbacks have come to an end.

Turning to international trade, in 1998/99 growth in Australia's exports is forecast to come to a standstill due to weak demand from Asia. However, growth in imports is also forecast to stagnate due to the more moderate growth in domestic spending and the increase in import prices caused by the lower exchange rate. This will help growth in manufacturing to improve since it is the main import-competing sector. The lower exchange rate should also make Australian exports more competitive on world markets. Thus, after two years of moderate economic growth in 1998/99 and 1999/2000, the lower exchange rate should lift exports and suppress growth in imports, lifting growth in GDP to 3.4 per cent in 2000/01.

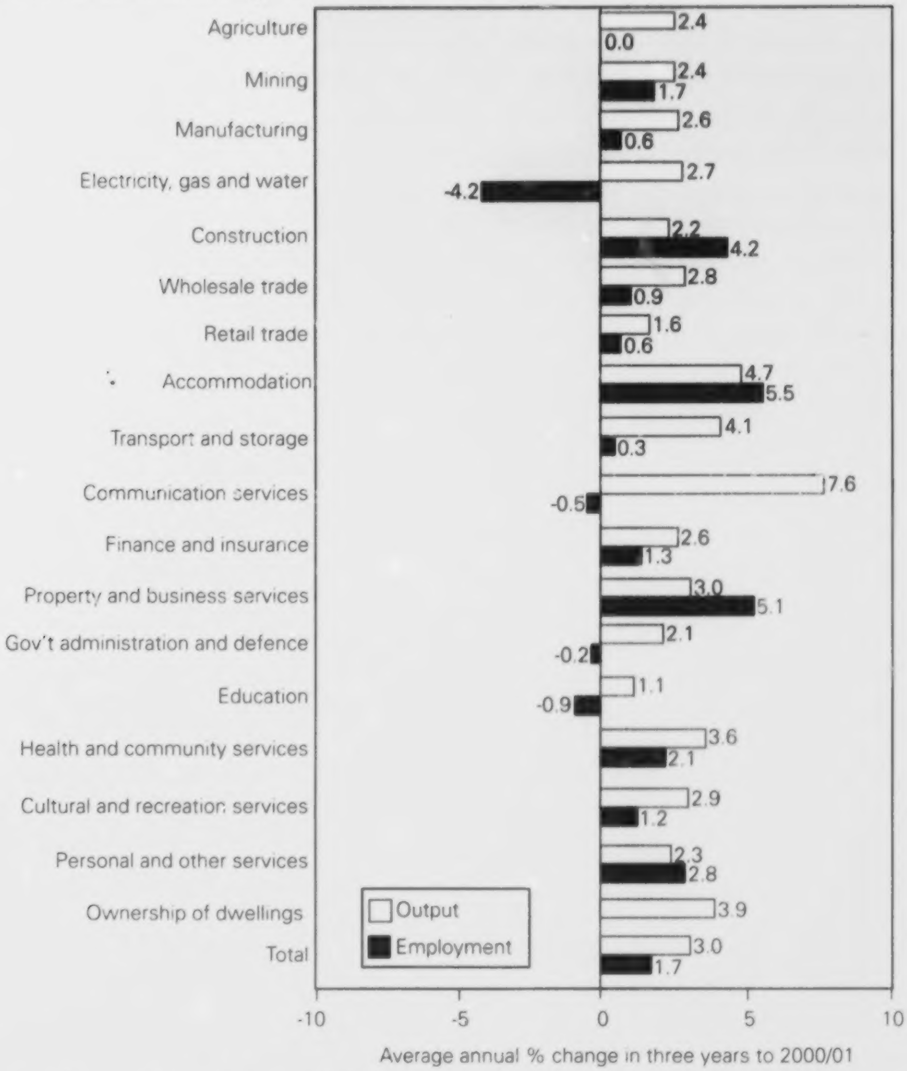
Despite the strong growth in GDP in 1997/98, employment growth was a modest 1.2 per cent, partly because the employment cycle tends to lag behind the GDP cycle. Employment growth *during* 1997/98 was much stronger. This strength shows up in our forecast for employment growth of 1.9 per cent in 1998/99 compared with 1997/98. Moderate output growth in 1999/2000 will be reflected in moderate employment growth of 1.4 per cent in that year. The resumption of firm GDP growth in 2000/01 will be concentrated in the trade-competing sectors of the economy. Since these sectors are capital-intensive, employment growth is forecast to rise only slightly to 1.7 per cent. Overall, for the period from 1998/99 to 2000/01, employment will grow at an average annual rate of 1.7 per cent.

In this environment of moderate growth, inflation is forecast to remain low, despite the weakness in the Australian dollar. This will enable the Reserve Bank to keep market interest rates low, at around 5.0 per cent. This will help to underpin firm activity and employment in the construction sector.

Outlook by industry

Employment growth over the next three years will not be uniformly distributed across industries. This is illustrated in figure 3, which compares our forecasts for average annual output and employment growth in the three years to 2000/01. Figure 4 compares our forecasts for average employment growth over the next three years, with the actual employment growth observed over the last three years. The remainder of this section discusses the outlook for employment growth for each industry.

Figure 3: Medium-term output and employment growth

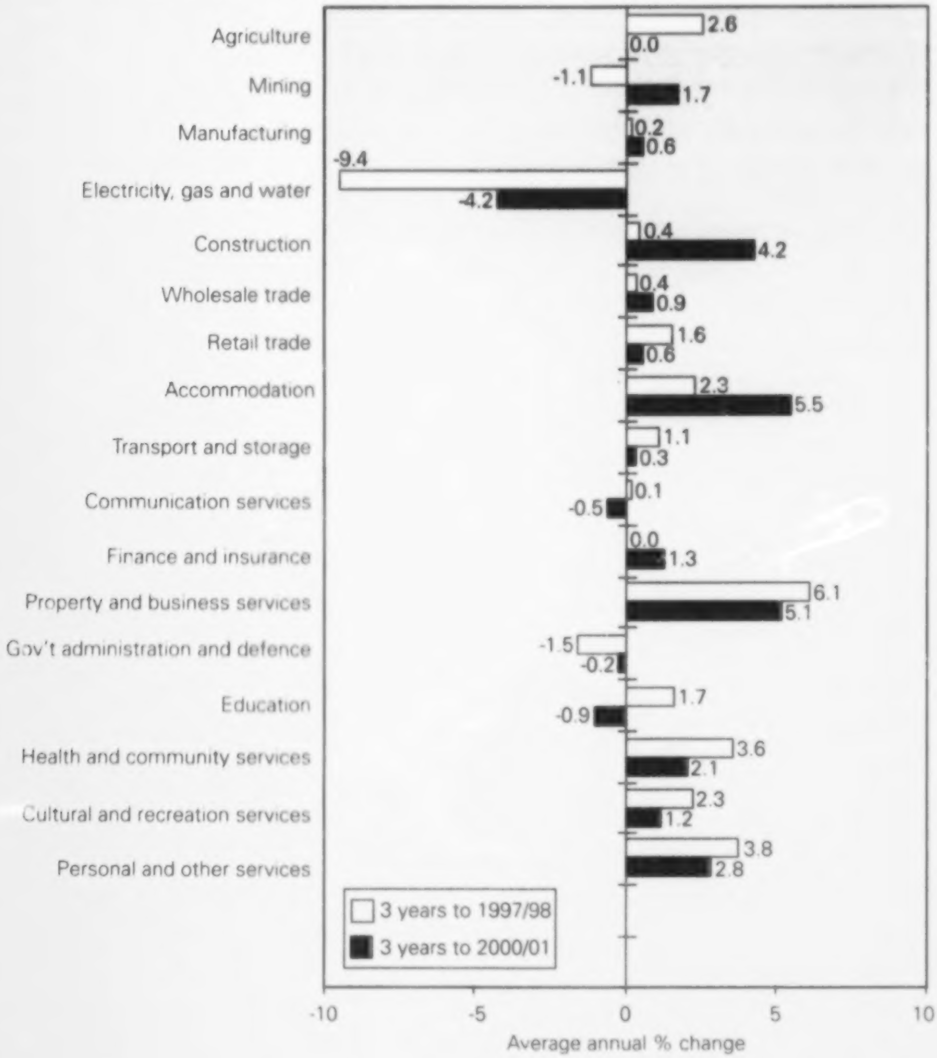


Agriculture, forestry and fishing

Fluctuating weather conditions mean that growth in this industry tends to be highly volatile. Over the last three years, output and then employment have grown firmly in the recovery from the drought of 1994/95. Now that this recovery is complete, the firm growth of the last three years is unlikely to be repeated over the next three years.

In fact, agriculture, forestry and fishing is being hit by the Asian crisis. Prices have fallen significantly in US dollar terms, although the depreciation of the Australian dollar has cushioned the price falls in $A terms. Agriculture, forestry and fishing output forecast to grow at a moderate average annual rate of 2.4 *per cent* over the next three years, is below the rate of 3.0 per cent forecast for the economy as a whole. Employment growth in this sector will also be weaker.

Figure 4: Medium-term jobs growth



Mining

Mining output has been growing strongly. Over the three years from 1994/95 to 1997/98, it grew at a strong average annual rate of close to 5.0 per cent. This growth was driven by very high levels of mining industry investment.

In contrast, the outlook for growth in mining output is now more subdued. In *Australian commodities*, the Australian Bureau of Agricultural and Resource Economics (ABARE) has forecast that, due to lower world commodity prices brought about by the Asian crisis, capital expenditure and exploration expenditure will decline from the very high levels reached in recent years. Thus we are forecasting that for the next three years the average annual rate of growth in mining output will moderate to only 2.4 per cent.

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Although growth in mining output has been strong over the last three years, mining employment has been falling. This means that growth in productivity has also been strong. In a year with particularly strong productivity growth, output grew by 5.3 per cent in 1997/98 while employment fell by 4.0 per cent.

Over the next three years, this strong productivity growth is expected to moderate. With slower growth in productivity, growth in mining employment is expected to improve, despite the lower growth in mining output. Mining employment is forecast to grow at an average annual rate of *1.7 per cent*.

Manufacturing

Since 1984/85, the trend in manufacturing employment has been flat. Growth in output has been only moderate because of rising competition from imports. This, together with firm growth in productivity, has led to the flat trend in employment.

This same pattern has continued to be evident more recently. Over the three years from 1995/96 to 1997/98, the Australian dollar drifted upwards making imports cheaper, thus reducing the competitiveness of local manufacturers against imports.

This is now set to change slightly with the Asian crisis which has triggered a depreciation of the Australian dollar. Imports are now dearer, improving the competitiveness of local producers against imports.

As a result, manufacturing employment is forecast to grow modestly over the next three years. However, with a continuation of firm productivity growth, this employment growth is forecast to be held to a low average annual rate of *0.6 per cent*.

The emergence of positive growth in manufacturing employment is important because this is an important area for vocational training.

Electricity, gas and water

Employment in this industry has been falling for some time. In a particularly sharp drop, the official ABS data shows that employment fell by 17.5 per cent in 1996/97. This implies average annual *falls* in electricity, gas and water employment over the last three years of 9.4 per cent. However, it should be noted that these figures overstate the number of jobs actually lost since some of the reduction is due to jobs being reclassified as a result of contracting out and other organisational changes. For example, some jobs in mining coal for electricity generation were previously counted in this sector but are now counted in the mining sector.

Over the next three years, growth in output will be stronger than over the last three years as the improved outlook for manufacturing causes growth in demand for electricity, gas and water to pick up slightly. However, average annual growth in output of 2.7 per cent will still be moderate relative to growth across the economy as a whole.

As noted above, organisational changes mean that measured job losses in this industry are overstated. This also means that measured productivity growth for the last three years has been artificially high. Therefore, we are forecasting that productivity growth will be lower than over the last three years. As a result, employment is forecast to continue falling over the next three years, but at a reduced average annual rate of *-4.2 per cent*.

Construction

The construction industry is highly cyclical. For example, output and employment both rose by around 10.0 per cent in 1988/89 before falling by a similar amount just a few years later in 1991/92. These cycles mean that medium-term growth rates for the construction industry can be significantly affected by the stage of this cycle being considered.

In 1996/97 and 1997/98, growth in construction output was strong helped by an upswing in housing investment and Olympics-related activity. This resulted in strong average annual growth in construction output in the three years to 1997/98 of over 5.0 per cent. This strong growth in output was not translated to employment which, over the same period, only grew at an average annual rate of 0.4 per cent.

Generally, growth in construction employment lags behind growth in construction output. Although output growth was strong in 1996/97 and 1997/98, this has taken time to be reflected in employment. However, construction employment finally turned up strongly from late in 1997. As a result, construction employment in August 1998 was up 10.0 per cent on its level in August 1997. This occurred too late to have much impact on the growth in construction employment from 1996/97 to 1997/98, but it does show up in our forecast for average annual growth for the next three years.

Initially the labour requirements from strong growth in construction output were met by increased overtime rather than more jobs. One reason for this increased reliance on overtime has been that employers have had trouble recruiting employees with the necessary skills.

Looking ahead, the proportion of employees working overtime is expected to return to a more normal level so that the recent upturn in construction employment will need to continue. We are forecasting that construction employment over the next three years will grow at an average annual rate of *4.2 per cent*, making construction the third-fastest growing industry in terms of jobs.

Wholesale trade

The fortunes of the wholesale trade industry are closely tied to sales of (both domestically produced and imported) manufacturing. This is because more than 90 per cent of wholesale trade activity involves the distribution of manufacturing sales.

Over the next three years, growth in manufacturing sales in total is expected to be moderate. Consequently growth in wholesale trade output is also forecast to be moderate, with growth at an average annual rate of 2.9 per cent over the next three years, but broadly in line with the outlook for the economy as a whole.

As noted earlier, the wholesale trade industry has had strong productivity growth in the past. This is forecast to continue over the next three years since investment in this industry is still high. Increased use of computers to manage inventories and increased levels of automation mean that growth in employment will be weaker than growth in output. Thus, despite steady growth in wholesale trade output over the three years to 2000/01, average annual growth in wholesale trade employment will be low at just *0.9 per cent*.

Retail trade

Over the last three years, retail trade employment has grown at an average annual rate of 1.6 per cent, which is similar to the rate for employment in aggregate. This has been supported by strong growth in private consumption. However, growth in private consumption is now expected to moderate, partly in response to the Asian crisis. This will reduce the average annual growth rate in retail trade output from 3.0 per cent over the three years to 1997/98 to only 1.6 per cent over the next three years. This will cause a similar weakening in the average annual growth rate of retail trade employment from 1.6 per cent over the last three years to *0.6 per cent* over the next three years. This has important implications for vocational training, a significant part of which is focussed on retail trade.

Accommodation, cafés and restaurants

Growth in both employment and output in this industry have been strong since the mid-1980s. This has been driven by a combination of rapid growth in tourism and the trend towards eating out. Slow productivity growth has contributed to the strong growth in employment. Employment in this industry has grown at a strong average annual rate of 4.9 per cent since 1985/86.

In an exception to the longer-term trend, average annual growth in employment has been lower over the last three years at 2.3 per cent. This is mainly due to more moderate growth in overseas tourism. Two factors that contributed to this more moderate growth were the rising Australian dollar, which made holidaying in Australia more expensive for overseas tourists, and publicity surrounding Pauline Hanson.

Over the next three years, strong growth in this industry is forecast to resume. Two factors that will contribute to this are the weak Australian dollar and the surge in overseas tourism that is expected to accompany the Sydney Olympics.

Over the same three-year period, productivity growth in this industry is forecast to remain low. Therefore growth in employment is forecast to rebound to a high average annual rate of *5.5 per cent* for the next three years. This is more in keeping with employment growth in this industry in the past, and means that accommodation, cafés and restaurants will be the fastest-growing industry division over the next three years.

Transport and storage

The services provided by the transport and storage industry can be divided into two main parts: freight transport which represents 31 per cent and passenger transport, representing 69 per cent.

The wide exposure of the transport and storage sector to most parts of the economy means that it tends to move with the general level of economic activity, except that it is more dependent on tourism, both inbound and domestic, than on other sectors. Strong growth in overseas tourism is forecast for the next three years. This is expected to support average annual growth in transport and storage output of a firm 4.1 per cent.

However, the transport and storage industry has generally had high productivity growth since the mid-1980s and we are forecasting that this will continue. This means that the firm growth in output in this industry will only support growth in employment as low as *0.3 per cent*. Thus this industry's share of jobs in the economy will continue to decline.

Communication services

Growth in communication services output has been strong for some time. The take-up of new technologies such as mobile phones and pay TV means that output has grown at an average annual rate of almost 14 per cent over the last three years. However, this strong growth has been accompanied by very strong growth in productivity. As a result, communication services employment was at virtually the same level in 1997/98 as it was in 1994/95. This lack of growth in communication services employment is forecast to continue over the next three years.

Over the next three years, average annual growth in communication services output is forecast to moderate slightly but this will remain the fastest growing industry division in terms of output. For the three years from 1997/98 to 2000/01, we are forecasting a very high average annual growth rate of 7.6 per cent. Continued development of new technologies and services is likely to contribute to this strong growth in output.

Productivity growth in this industry has been particularly strong over the last few years, largely due to a downsizing program that is currently under way at Telstra. These cutbacks were the main factor behind a fall of 9.2 per cent in total communication services employment in 1997/98. Further cutbacks are planned for the next few years, but these will be smaller than occurred in 1997/98. Therefore, although productivity growth in this industry is forecast to remain very high over the next three years, it will not be as high as was achieved over the last three years. Improvements in technology and similar developments should mean that this industry will have the strongest productivity growth of the industry divisions over the next three years.

Since growth in both output and productivity are forecast to remain very high over the next three years, growth in jobs will remain weak. In particular, total employment is forecast to decline, with an average annual growth rate of *-0.5 per cent* over the next three years. This decline reflects the remainder of the downsizing program at Telstra being partly offset by moderate employment growth elsewhere in the industry.

Finance and insurance

As noted earlier, finance and insurance has had rapid productivity growth. As a result, the number of people employed in the finance and insurance industry in 1997/98 was similar to that in 1994/95. In fact, employment in this industry has been relatively constant at around 315 000 since 1992/93. This strong productivity growth has been achieved through the increased use of technology such as ATMs, EFTPOS and telephone-banking. Also major banks have cut back their staff as they sought to reduce their costs in response to high levels of bad corporate debt during the early and mid-1990s.

However, there are brighter prospects in other parts of the finance and insurance industry. Rising levels of compulsory superannuation are resulting in strong growth in funds under management. There is also growing awareness of financial issues by households and this is expected to lead to growth in financial consultants.

Overall, we are forecasting that over the next three years employment in finance and insurance will grow at an average annual rate of *1.3 per cent*.

Property and business services

The business services component of this labour-intensive sector has benefitted from the trend towards outsourcing and contracting-out over the last three years as well as from the additional contracting-out that has flowed from recent government cutbacks. As a result, property and business services has had the strongest employment growth of any of the industry divisions over the last three years, averaging a very high 6.1 per cent per year.

The general trend towards outsourcing 'non-core activities' such as information technology (IT) is expected to continue within both the government and corporate sectors. However, as noted earlier, government cutbacks have now ended. While this will cause the growth in contracting out by the government sector to moderate, employment growth in this industry is forecast to remain strong. Consequently, we are forecasting that annual employment growth in property and business services employment will average *5.1 per cent* over the next three years.

Government administration and defence

Employment in this industry is primarily determined by government spending decisions.

Over the last three years there have been significant cutbacks, particularly as a result of the 1996/97 Commonwealth Budget. This led to government administration and defence employment falling at an average annual rate of 1.5 per cent.

Although these cutbacks have now come to an end, employment is forecast to fall by 1.3 per cent in 1998/99 as the last of the cutbacks flow through to employment. This will be partly reversed by a resumption of weak growth in employment in 1999/2000. Overall, we are forecasting that employment will *fall* slightly, with an average annual growth rate of *-0.2 per cent* over the three years to 2000/01.

Education

Education is another sector that is highly dependent on government spending, although private schools are also important.

Government cutbacks resulted in education employment falling in both 1996/97 and 1997/98. However, these falls were less than the 5.3 per cent increase in education employment that occurred in 1995/96. Thus, on average over the last three years, education employment grew at a respectable average annual rate of 1.7 per cent.

Without a repeat of the large jump that occurred in 1995/96, education employment is forecast to fall, with an average annual growth rate of *-0.9 per cent* over the next three years.

Health and community services

This is another sector that is dominated by government spending although private hospitals are also important.

Historically, this sector has enjoyed strong growth in both output and employment. This at least partly reflects the ageing of Australia's population. Following cutbacks that reduced growth in both output and employment in 1996/97, employment grew strongly in 1997/98. As a result, health and community services employment grew at the strong average annual rate of 3.6 per cent over the three years to 1997/98.

Over the next three years this is forecast to moderate to *2.1 per cent* as funding constraints force productivity to rise in the sector.

Within this industry division, average annual growth in employment is expected to vary from 0.6 per cent in health services to 4.6 per cent in community services employment. One factor that will contribute to the strong growth in community services employment will be the growth in nursing homes caused by the ageing population.

Cultural and recreation services

This sector includes the electronic media, sports, gambling, libraries and museums. It is a leisure-time sector, highly dependent on consumer spending, and it accounts for 2.4 per cent of national employment. Measured employment growth in this sector can be quite erratic. Much of this volatility is due to the relatively small size of this industry and resultant sampling errors in the ABS survey. Therefore, historical trends are highly sensitive to the time period being considered.

Despite the above caveat, the data suggest that this industry has experienced several years of above-average employment growth over the last few years. This, together with more moderate growth in consumer spending over the next three years, means that we are forecasting that cultural and recreation services employment will moderate to an average annual rate of *1.2 per cent* over the next three years.

Personal and other services

Part of the spending on this sector, such as the police forces, is government consumption and part, such as hairdressing and laundry services, is private consumption.

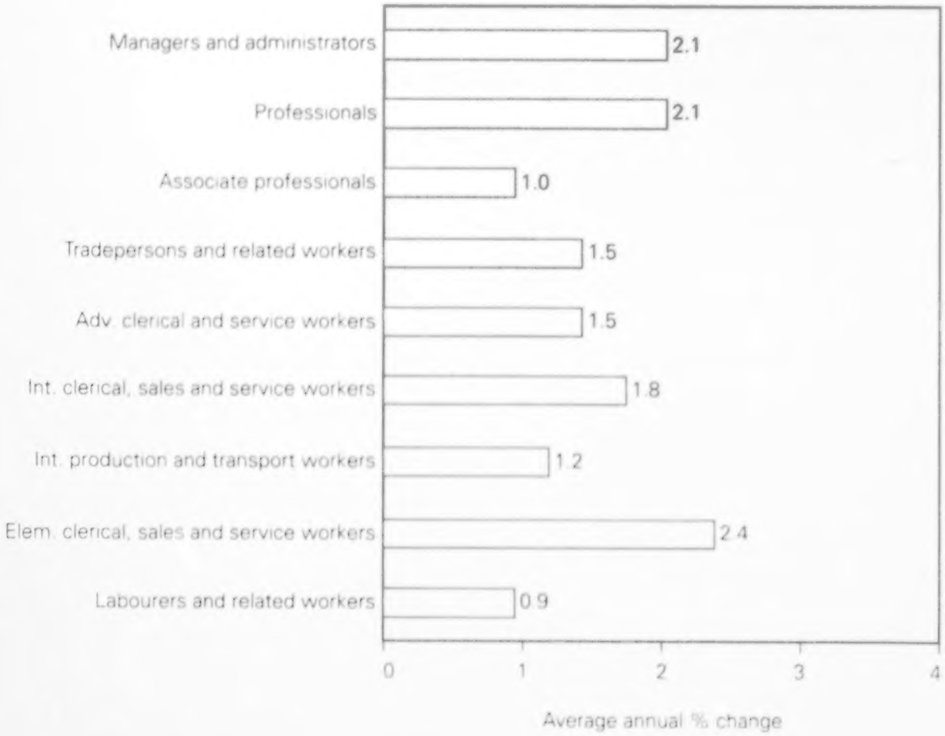
Reflecting the shift in consumer spending in favour of services and the particularly strong growth in private consumption in 1997/98, employment grew at an average annual rate of 3.8 per cent over the last three years.

More moderate growth in consumer spending means that this will be less strong over the next three years. However, our forecast for average annual growth of *2.8 per cent* is still significantly stronger than we are forecasting for total employment. This recognises the continuing shift in consumer spending in favour of services at the expense of retail trade.

Outlook for occupations

Figure 5 shows our forecasts for average annual growth in employment by Australian Standard Classification of Occupations (ASCO) major group.

Figure 5: Medium-term jobs growth by occupation—1997/98 to 2000/01



Changes in the occupational mix of total employment can be attributed to two main effects. First, the occupation mix of total employment can be affected by the changes in the industry mix of total employment. The second effect is changes in the mix of occupations represented within each industry. These effects are illustrated below.

Turning to the changes in the occupation mix within industries, two main trends are evident in the national occupation forecasts. First, there is a trend towards the clerical, sales and service-based occupations. This is particularly evident among the less skilled occupations where the various categories of clerical, sales and service workers are all forecast to grow more rapidly than either intermediate production and transport workers or labourers and related workers.

The second trend that is apparent is that generally, growth in the more highly skilled occupations is forecast to be stronger than in the less highly skilled occupations. This is supported by the observation that only elementary clerical, sales and service workers are expected to grow more quickly over the next three years than managers and administrators or professionals. There are two reasons for the rapid growth in elementary clerical, sales and service workers. First, there is the general trend towards service-based occupations described above. The second main reason for the rapid growth in this category is that the trend towards part-time and casual work is particularly strong among these occupations. In contrast, the proportion of managers and administrators or professionals who are working part time is much lower.

The following brief observations can be made about the outlook for each of the major occupation groups.

Managers and administrators

Managers and administrators are forecast to grow at a high average annual rate of *2.1 per cent* over the next three years. This reflects both changes in the industry mix of employment and the changes to the occupation mix within industries.

Changes to the occupation mix within industries will also contribute to the strong growth in managers and administrators over the next three years. This is largely related to the overall trend towards more highly skilled occupations within most industries. Much of the growth in business services is due to new businesses being set up following outsourcing by governments and businesses. Typically, these businesses are relatively small, thus leading to strong growth in the number of people working as managers.

Professionals

Professionals are also expected to grow at a high average annual rate of *2.1 per cent* over the next three years. This is primarily due to changes in the industry mix of employment. Property and business services relies heavily on employment of professionals. Therefore, the strong growth in property and business services employment will drive strong growth in demand for professionals.

Associate professionals

Associate professionals stand out since they appear to be excluded from the general trend towards more highly skilled occupations. Annual employment growth is forecast to average just *1.0 per cent* over the next three years. This outlook reflects both changes in the industry mix of total employment and changes to the occupation mix within industries.

Within industries there has also been a shift away from the associate professional occupations towards related professional occupations. This reflects the economy-wide trend towards more highly skilled occupations.

Tradespersons and related workers

Over the next three years, tradespersons and related workers are forecast to grow at an average annual rate of *1.5 per cent*, only slightly below the average for total employment. However, we are forecasting that there will be important changes in the composition of employment within this occupation major group.

Two sub-major occupation groups for which we are forecasting strong jobs growth are construction tradespersons and electrical and electronics tradespersons. We forecast that over the next three years, the number of people employed in these occupations will grow at strong average annual rates of 3.9 and 2.5 per cent respectively. This is mainly due to the large number of people with these occupations who are employed within the construction industry.

Over the same three-year period, the number of automotive tradespersons is forecast to decline. This largely reflects our forecast for weak growth in motor vehicle retailing and services. The decline also reflects a continuation of the historical decline in mechanics employed within manufacturing.[1]

Advanced clerical and service workers

The number of advanced clerical and service workers is forecast to grow at an average annual rate of *1.5 per cent* over the next three years. This is only slightly below the average for all occupations. This forecast is the result of offsetting industry mix and occupation mix effects.

The industry mix effect is contributing to strong growth in advanced clerical and service workers. A large proportion of these workers is employed in the business services industry, and in legal and accounting services in particular.

However, the industry mix effect is forecast to be offset by changes in the occupation mix of employment within industries. More than half of those classified to this occupation major group are secretaries and personal assistants. These occupations are being replaced by computers and other improvements in technology, thus reducing the proportion of advanced clerical and service workers.

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[1] The number of mechanics employed within the manufacturing sector fell by 19% over the decade to 1996. (NCVER 1998, *The outlook for training in Australia's industries*, NCVER, Adelaide, p.51.)

Intermediate clerical, sales and service workers

Intermediate clerical, sales and service workers are expected to grow at an average annual rate of *1.8 per cent* over the next three years. This is almost identical to our forecast for growth in total employment. However, this growth will not be uniformly distributed across the sub-major occupation groups. For example, intermediate service workers are forecast to grow at a high average annual rate of 3.2 per cent over the next three years while growth in intermediate clerical workers is forecast to be below the overall average at 1.0 per cent.

A large proportion of intermediate service workers are waiters and bar attendants (both of which have been identified as having skills shortages[2]) who will benefit from the strong growth in employment that we are forecasting for accommodation, cafés and restaurants. Another industry with strong growth and a large proportion of intermediate service workers is community services.

Intermediate production and transport workers

Growth in intermediate production workers is forecast to be weaker than in intermediate clerical, sales and service workers. This reflects a general shift within most industries away from production-based occupations towards the clerical, sales and service-based occupations.

As might be expected from the name for this occupation major group, the largest proportion of those employed as intermediate production and transport workers are employed by the transport and storage industry. As discussed earlier, employment growth in this industry is forecast to be low over the next three years. As a result, average annual growth in intermediate production and transport workers is forecast to be below the average for total employment over the next three years at *1.2 per cent*.

Elementary clerical, sales and service workers

Sixty per cent of those in this classification are employed by the retail trade sector, where employment is forecast to average growth of just 0.6 per cent per annum. This suggests that growth in elementary clerical, sales and service workers should be weak. However, they are forecast to be the fastest-growing occupation major group. Over the next three years they are forecast to grow at a high average annual rate of *2.4 per cent*.

The strong growth that is forecast for elementary clerical, sales and service workers is due to changes in the occupation mix within industries. In particular, growth in this occupation major group is being helped by the shift away from the production-based occupations towards the clerical, sales and service-based occupations which is particularly strong amongst the low skilled.

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[2] NCVER 1998, *The outlook for training in Australia's industries*, NCVER, Adelaide, p.175.

Labourers and related workers

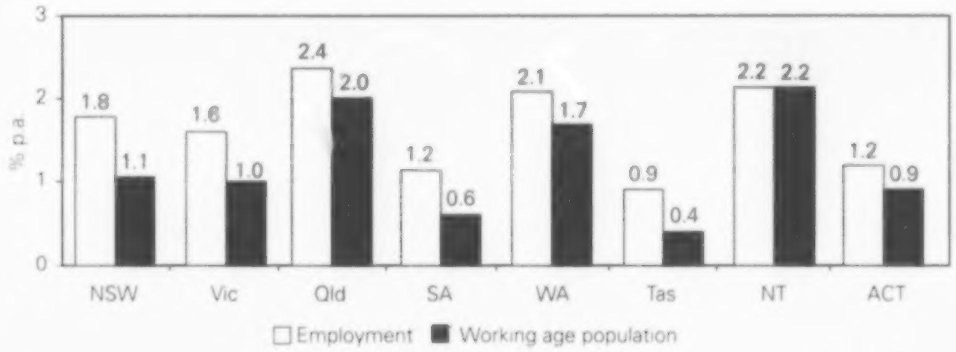
Labourers and related workers are forecast to grow at the slow average annual rate of *0.9 per cent* over the next three years. This means that that this occupation will have the weakest employment growth of any of the major occupation groups over this period. This forecast reflects both industry mix effects and the changing occupation mix within industries. Large numbers of labourers and related workers are employed in agriculture where employment is forecast to be flat over the next three years.

Turning to changes in the occupation mix within industries, growth in labourers and related workers is being held back by both the trend towards higher skilled occupations and the trend away from production-based occupations.

Outlook by State

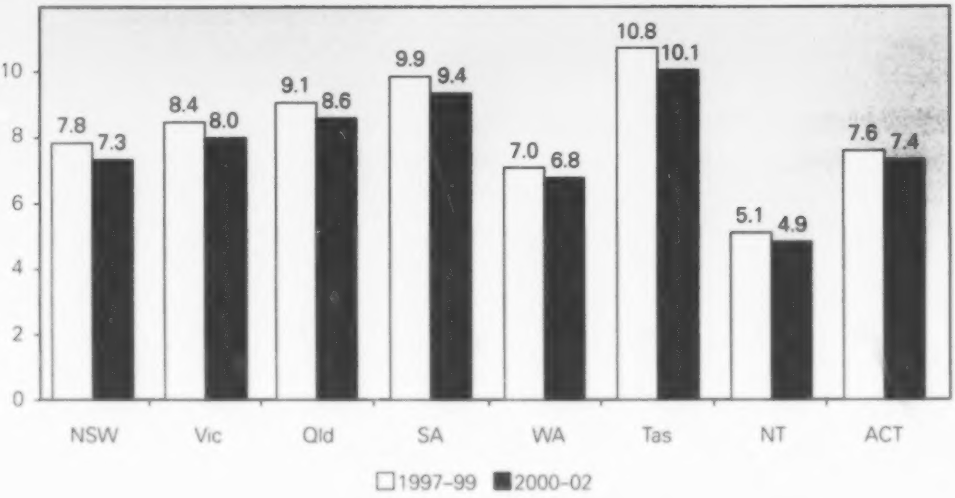
Over the medium term, population growth is the main determinant of differences in employment growth between the States and Territories, as can be seen in figure 6. Interstate migration to Western Australia, Queensland and the Northern Territory lifts growth in population and employment in those States to above national rates, while the opposite is true for South Australia and Tasmania.

Figure 6: Employment and population growth by State



Total employment is forecast to grow at a faster rate than population in most States and Territories so that unemployment falls slightly both nationally and in each State/ Territory (figure 7).

Figure 7: Unemployment by State



Impact of the tax reform package on industries

The government's proposed tax reform package, including a goods and services tax (GST), will not affect all industries in the same way. Econtech has undertaken a detailed analysis of the impact of this package using a highly detailed model known as MM303.

The impact of tax reform on employment by industry can be broken into two parts. The first of these is the effect on production. For example, changes to the tax mix will cause production to increase relative to what it otherwise would have been in some industries and to fall relative to what it otherwise would have been in others.

The second effect is on labour productivity within each industry. Across the economy as a whole, the cost of investing will fall under the tax package. Therefore, there will be a switch towards capital that will boost labour productivity. However, the size of this productivity gain will also vary between industries so that it will contribute to differences in the impact of the tax package on jobs between industries.

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The impact of the tax package on production and employment in each of the industry divisions is presented in table 1. These estimates are of the long-run impact on the *level* of production and employment in each industry. It is important to note that these are one-off effects and are *not* changes in the annual growth rates for each industry. Rather, they are how much higher or lower production or employment will be once the economy has fully adjusted to the new tax regime compared with what it would otherwise have been had the status quo remained. This process of adjustment will not happen instantaneously, but rather will take time to develop.

It is also important to note that the modelling *assumes* that total employment will be unaffected in the long run. This is not a result but is a standard economic assumption

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when undertaking this type of long-run analysis. In practice, this assumption is likely to be conservative and the tax package is expected to lead to higher total employment over both the short and longer terms. However, we have not attempted to estimate how large these increases in total employment will be.

Table 1: Impact of the tax reform package on production and jobs

Industry division		Production (volume) % change	Employment % change
a	Agriculture, forestry and fishing	1%	-1%
b	Mining	7%	3%
c	Manufacturing	4%	1%
d	Electricity, gas and water	1%	-4%
e	Construction	1%	0%
f	Wholesale trade	4%	2%
g	Retail trade	1%	-1%
h	Accommodation, cafés and restaurants	-2%	-3%
i	Transport	3%	0%
j	Communication services	1%	-3%
k	Finance and insurance	4%	2%
l	Property and business services	2%	0%
m	Government admin. and defence	0%	-1%
n	Education	0%	0%
o	Health and community services	2%	1%
p	Cultural and recreation services	-2%	-4%
q	Personal and other services	-2%	-2%
r	Ownership of dwellings	-2%	n/a
Total		**1.9%**	**0%**

In the short term, total employment will increase because the tax package delivers a fiscal stimulus. For example, in each of the first three years of its implementation, it takes between $4 billion and $7 billion from the projected budget surplus. This will stimulate consumer spending in particular which will lead to increased demand and hence employment.

Over the longer term, a higher level of employment is expected due to the fact that the package reduces effective marginal tax rates. This includes both actual marginal tax rates and the consequences of extending social security tapers. These changes should help to reduce poverty traps and hence improve work incentives, thus leading to increased employment.

The industries with the largest employment gains in terms of numbers of jobs (rather than percentage changes) will be manufacturing; finance and insurance: and wholesale trade. The industries where employment will be reduced the most are cultural and recreation services; accommodation, cafés and restaurants; and personal and other services. The main factors influencing these results are described briefly below.

Manufacturing will benefit from the removal of sales tax. As a result, the price of many manufactured goods will fall, thus stimulating increased local sales and hence production.

Finance and insurance will benefit from the abolition of financial institution taxes and business stamp duties. As a result, production and employment will increase.

The main activity of wholesale trade is the distribution of manufactured goods. Therefore, this industry will benefit from the increase in manufacturing sales.

Not surprisingly, the industries with the largest reductions in employment are the labour-intensive service industries. These industries are treated preferentially by the existing tax system since their sales are not subject to sales tax. Therefore, prices for these industries, which include cultural and recreation services; accommodation, cafés and restaurants; and personal and other services, will rise and sales will be reduced. Lower sales will mean lower employment in these industries.

Key forecasts

This paper has presented an overview of the general economic outlook over the next three years. We are forecasting that, due to the Asian crisis, the economy will grow at a moderate rate over the next two years before growing at a firm rate again from 2000/01. Over the same period, we are forecasting that employment will grow at an average annual rate of 1.7 per cent.

We have also offered industry forecasts. Over the next three years we are forecasting that the industries with strong average annual growth in jobs will be accommodation, cafés and restaurants (5.5%); property and business services (5.1%); construction (4.2%); and personal and other services (2.8%). Over the same period, employment is forecast to fall in four industries. These industries with *declining* employment are forecast to be electricity, gas and water (-4.2%); education (-0.9%); communication services (-0.5%); and government administration and defence (-0.2%).

Our forecasts of jobs growth by occupation were presented. These forecasts show that the strong-growing occupation major groups over the next three years are expected to be elementary clerical sales and service workers (2.4%); managers and administrators (2.1%); and professionals (2.1%). Over the same period, we are forecasting that the weak growing occupations will be labourers and related workers (0.9%); associate professionals (1.0%); and intermediate production and transport workers (1.2%).

To some extent, while these patterns reflect a continuation of past trends, not all historical trends in employment by industry are forecast to continue over the next three years. For example, education has had strong growth in jobs in the past but its employment is forecast to fall over the next three years due to the continuing impact of government cutbacks. For example, the three industries where employment growth is forecast to be strongest over the next three years have all had strong jobs growth in the past. Similarly, our forecasts for weak growth in electricity, gas and water;

communication services; and government administration and defence employment also reflect a continuation of past trends.

Among the occupations, we expect stronger growth in the clerical, sales and service occupations than in the production-based occupations. We also forecast that the more highly skilled occupations will generally grow more rapidly than the less highly skilled occupations. Changes in the industry mix of total employment will also have effects on the occupational mix, especially at finer levels of disaggregation.

Notes

Detailed forecasts

Table A1: Employment forecasts by ANZSIC division

	Av. annual growth	Share of total employment	
	1997/98–2000/01	1997/98	2000/01
	(% pa)	(%)	(%)
Agriculture, forestry, and fishing	0.0	5.1	4.9
Mining	1.7	1.0	1.0
Manufacturing	0.6	13.2	12.7
Electricity, gas and water	-4.2	0.8	0.6
Construction	4.2	7.0	7.6
Wholesale trade	0.9	5.9	5.7
Retail trade	0.6	14.6	14.1
Accommodation, cafés and restaurants	5.5	4.7	5.3
Transport and storage	0.3	4.6	4.4
Communication services	-0.5	1.7	1.6
Finance and insurance	1.3	3.7	3.6
Property and business services	5.1	10.5	11.6
Government administration and defence	-0.2	4.7	4.4
Education	-0.9	6.8	6.3
Health and community services	2.1	9.4	9.5
Cultural and recreational services	1.2	2.4	2.3
Personal and other services	2.8	4.0	4.1

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Table A2: Employment forecasts by ANZSIC sub-division

	Av. annual growth 1997/98–2000/01 (% pa)	Share of total employment 1997/98 (%)	Share of total employment 2000/01 (%)
Agriculture	1.0	4.5	4.3
Services to agriculture—hunting and trapping	2.6	0.3	0.3
Forestry and logging	1.9	0.2	0.2
Commercial fishing	1.3	0.2	0.2
Coal mining	-0.5	0.3	0.3
Oil and gas extraction	5.7	0.1	0.1
Metal ore mining	1.9	0.4	0.4
Other mining	2.6	0.1	0.1
Services to mining	4.3	0.2	0.2
Food, beverages and tobacco	3.1	2.2	2.2
Textile, clothing, footwear and leather	0.0	1.1	1.0
Wood and paper product	1.3	0.7	0.7
Printing, publishing and recorded media	3.6	1.4	1.5
Petroleum, coal, chemical and associated product	2.4	1.1	1.2
Non-metallic mineral product	1.5	0.5	0.5
Metal product	2.1	2.1	2.1
Machinery and equipment	1.2	2.9	2.8
Other manufacturing	3.6	1.0	1.0
Electricity and gas supply	0.4	0.5	0.5
Water supply, sewerage and drainage services	0.6	0.3	0.2
General construction	5.2	2.5	2.7
Construction trade services	6.4	4.5	5.1
Basic material wholesaling	-1.6	1.5	1.3
Machinery and motor vehicle wholesaling	0.7	2.3	2.2
Personal and household good wholesaling	0.5	2.1	2.0
Food retailing	1.7	5.7	5.6
Personal and household good retailing	0.3	6.0	5.7
Motor vehicle retailing and services	0.2	3.0	2.8
Accommodation, cafés and restaurants	4.4	4.7	5.0
Road transport	0.8	2.4	2.3
Rail transport	-10.3	0.5	0.3
Water transport	0.8	0.1	0.1
Air and space transport	2.1	0.5	0.5
Other transport	8.1	0.1	0.1
Services to transport	-0.4	0.8	0.7
Storage	4.7	0.2	0.2
Communication services	8.4	1.7	2.1
Finance	2.2	2.2	2.2
Insurance	0.7	0.6	0.6
Services to finance and insurance	6.6	0.9	1.0

	Av. annual growth 1997/98–2000/01 (% pa)	Share of total employment 1997/98 (%)	Share of total employment 2000/01 (%)
Property services	0.1	1.3	1.3
Business services	4.9	9.2	9.9
Government administration	1.0	3.8	3.6
Defence	-2.7	0.9	0.8
Education	1.0	6.8	6.6
Health services	0.6	7.2	6.8
Community services	4.6	2.2	2.3
Motion picture, radio and television services	-3.4	0.5	0.4
Libraries, museums and the arts	0.1	0.6	0.6
Sport and recreation	-1.3	1.3	1.2
Personal services	1.8	1.9	1.9
Other services	2.6	1.9	1.9
Private households employing staff	-3.4	0.1	0.1

Table A3: Employment forecasts by ASCO major group

	Av. annual growth 1997/98–2000/01 (% pa)	Share of total employment 1997/98 (%)	Share of total employment 2000/01 (%)
Managers and administrators	2.1	7.6	7.6
Professionals	2.1	17.5	17.8
Associate professionals	1.0	10.5	10.3
T'persons and related wkrs	1.5	13.5	13.5
Adv. clerical and service wkrs	1.5	4.5	4.5
Int. clerical, sales and service wkrs	1.8	17.1	17.1
Int. production and transport wkrs	1.2	9.0	8.9
Elem. clerical, sales and service wkrs	2.4	10.3	10.5
Labourers and related wkrs	0.9	10.0	9.8

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Table A4: Employment forecasts by ASCO sub-major group

	Av. annual growth 1997/98–2000/01 (% pa)	Share of total employment 1997/98 (%)	2000/01 (%)
Generalist managers	3.3	1.3	1.4
Specialist managers	2.3	3.3	3.3
Farmers and farm managers	1.2	2.9	2.9
Science, building and engineering prof.	2.8	2.0	2.1
Business and information prof.	3.3	4.7	4.9
Health prof.	0.7	3.3	3.2
Education prof.	1.2	4.4	4.3
Social, arts and miscellaneous prof.	2.5	3.1	3.2
Science, engineering and related assoc. prof.	1.6	1.5	1.5
Business and administration associate prof.	1.2	2.8	2.8
Managing supervisors (sales & service)	0.8	4.4	4.3
Health and welfare associated prof.	0.1	0.7	0.7
Other associate prof.	0.2	1.0	1.0
Mechanical and fabricated engineering t'persons	0.4	2.4	2.3
Automotive tradespersons	-0.7	1.6	1.5
Electrical and electronics tradespersons	2.5	2.1	2.1
Construction tradespersons	3.9	3.1	3.3
Food tradespersons	1.1	1.0	1.0
Skilled agricultural and horticultural workers	0.4	0.8	0.8
Other tradespersons and related workers	0.3	2.5	2.4
Secretaries and personal assistants	1.6	2.5	2.5
Other advanced clerical and service workers	1.4	2.0	2.0
Intermediate clerical workers	1.0	10.1	9.9
Intermediate sales and related workers	2.1	1.5	1.5
Intermediate service workers	3.2	5.5	5.7
Intermediate plant operators	1.7	2.0	2.0
Intermediate machine operators	0.8	1.2	1.2
Road and rail transport drivers	0.9	3.3	3.2
Other int. production and transport workers	1.4	2.6	2.5
Elementary clerks	3.4	1.0	1.0
Elementary sales workers	2.2	8.2	8.3
Elementary service workers	3.0	1.1	1.2
Cleaners	1.6	2.4	2.4
Factory labourers	0.6	2.7	2.6
Other labourers and related workers	0.8	4.9	4.8

Industry training in Australia today

Peter Kirby

Senator Chris Ellison, representing the federal government when he opened this conference, reminded us that the government was committed to increasing the pathways from school to work, providing greater choice of provider and increasing the number of training packages. Among the future challenges that he mentioned was what he called 'wandering' the internet and I wondered whether that was in reference to increasing the pathways.

Mark Paterson was the first of the industry outlook speakers and Mark pointed out that VET was nearly a $6 billion industry when public and private expenditure was combined. He said that there were two essentials for success of training in Australia in the future. The first one was the achievement of a national system and the second one was the achievement of a system that gave priority to meeting employer requirements. I would just like to emphasise that he said 'employer requirements', he didn't say 'industry requirements'.

He pointed out that economic growth will continue to underpin employment and training and that the main skills shortages still persisted in our economy even though unemployment was above eight per cent.

Bill Mansfield provided a second industry outlook and he outlined some of what he saw as the impediments to achieving a national vocational education and training (VET) system. Those he thought that were prominent were what he described as road blocks—one such being the back-sliding of the States. Bill pointed out that over half the labour force had no qualifications and that the training system remained complex and not easily understood by employers. He expressed a concern about falling apprenticeship numbers, highlighting that traineeships now exceeded apprenticeship numbers, and that Australia was falling behind international performance in terms of VET.

Two or three interesting points came out of these two presentations. Both of them actually mentioned 'traditional traineeships' and I was very pleased to see that traineeships had reached that status. Bill pointed out that the support had come from leading trade union figures since 1995 which had produced the excellent results in terms of traineeship growth. I was perhaps one of a number of people who was handicapped by memories of 1985 when traineeships were introduced. The attitude of those same trade union figures to traineeships at that time was certainly different. Still, I suppose a decade isn't very long to get recognition of new concepts. Bill also suggested that with many employees now in dead-end jobs with employers who had little concern for training, it was appropriate that employees be given a right to training. He said that this was a point that he discussed with Mark Paterson who had opposed the idea. But I was interested that when Mark Paterson was asked by a questioner what he thought of the notion of vouchers, Mark said he thought that at least, in principle, the idea should be supported. I wondered how much difference there was, therefore, between the two views of Bill and Mark. The introduction of vouchers, it seems to me, would be one way of giving people a right to education and training.

Richard Jenkins and Sandra Yates took two very different industry perspectives on the changing world of work. Richard took a perspective from the manufacturing industry, and among the comments he made was that technology was now going to low-cost countries, that employers were now more involved in both importing and exporting, and those features would grow in the future and certainly not be reversed. He commented that manufacturing was, perhaps to a surprising number of people, still holding its own in terms of employment; that it was still the second largest industry in terms of employment with 1.1 million people employed. His concerns were for skill shortages—a 40 per cent fall-off in apprenticeship commencements in that industry since 1989/90 and despite all the advantages of enterprise bargaining, training did not feature as a part of enterprise agreements.

Sandra took what she said was a people point of view and I thought it was a most entertaining and stimulating presentation. She told us that job insecurity has now become the key issue in modern Australia with a damaging impact on our social fabric. Any one of the social indicators would support that view. She said that the days of one job for life (and possibly one marriage) were long since past and so I was able to put myself in that past generation among those who have had those privileges. She said that there were two groups most affected—middle-aged men, who were reluctant to retrain and who found change very difficult to accept, and the alienated young for whom change is, in fact, a constant and who drift in and out of casual work. There is much to be said about how we have allowed this to happen over the past 25 years, because 25 years ago that certainly wasn't the situation in Australia. But Sandra, in fact, turned to the future asking questions about how we create incentives or perhaps disincentives that would lead to an increase in job opportunities. How can we get these people to come into training institutions? How can we define the nature of work and educate people for a future that looks very different from that of the last quarter century?

And these questions bought out two additional but most interesting points in the course of discussion. The first was the extent of paid and unpaid overtime, and its impact on what might be called work-sharing. I did recall from reading a recent

Australian Bureau of Statistics (ABS) publication that, in fact, the amount of paid and unpaid overtime is now estimated to be the equivalent of 500 000 full-time jobs.

Now just the briefest of comments on some of the points coming out of the concurrent sessions. In retail, Ashley Ward, representing a large number of small retailers in Queensland, was very suspicious of the notion of wholly 'on-the-job' training, and he referred in less-than-favourable terms to the failed small business traineeship that had been developed sometime in the recent past. He said that there was a problem of ensuring competence and maintaining standards and quality. He described the considerable efforts his organisation had made to overcome these problems, leading to the national Retail Training Package which is now being implemented.

In contrast, Jeff Wapling from Target and Fosseys, described how they were moving away from relying entirely on their own internal on-the-job, in-house training and moving towards vocational education and training—accredited training with the use of external providers and including recognition of prior learning. In recent times they have also become involved in school-based traineeships.

The third contrasting view came from McDonald's where Frank McManus outlined why McDonald's in Australia is at the forefront of training McDonald's employees worldwide—all in-house, all on the job. He went on to say that they now make an investment of $20 million per year in training and it has given McDonald's Australia the highest productivity of any McDonald's worldwide. So we had three different perspectives on the same industry—all saying that a different approach to training was most appropriate in respect of those they represented. Maybe that was why Mark Paterson referred to employer requirements rather than industry requirements.

Construction gave us a different story—male-dominated employment, 50 per cent in trades or equivalent, only two per cent of the industry employing 20 employees or more, 85 per cent of businesses in the industry employing four or fewer employees. The speakers recognised that government exercised considerable influence in terms of the economic activity in this industry and felt that perhaps that influence was not always used in the best possible way. They pointed out how the industry was subject to short-term business cycles and how this affected their attitude to training. Most of the training was said to be at entry level. Little if any effort was given to upgrading the workforce.

Health and community services were described as big in numbers and diverse in coverage, accounting for nine per cent of all jobs with 50 per cent of the workforce having a qualification level between associate diploma and higher degree. And yet there were few qualifications among such categories as nursing assistants, personal carers, nurse-aids and indigenous health workers. During the session, an innovative approach to training in the welfare area involving workplace learning generated considerable interest.

In government administration, issues arose from the problems of re-inventing government, which I use as shorthand for the changes taking place, which included outsourcing and constant re-organisation of the three tiers of government. The questions raised were how best to deal with retraining staff, in many cases to perform quite different functions. Other immediate challenges were how to give employees more responsibility for planning their own training needs and how to use co-operative approaches to developing training. I understand that in this industry area another innovation had been 'virtual training', using technology to meet multi-site requirements.

Communications representatives spoke of the dangers of excessive infatuation with on-line services, especially in training provision, complaining that the current information technology VET qualifications do not display consistency across States.

The second speaker described a range of training partnerships which had been developed in New South Wales technical and further education (TAFE) including on-line and CD-based training in the graphic arts industry. He also explained how TAFE had undertaken innovative approaches to gaining access to expensive high tech equipment that would otherwise not be available to students and lecturers.

Speakers in the cultural and recreational services sector spoke about the strong growth in employment in sports and recreation where the outlook for jobs was extremely good. The greatest need was said to be at the vocational certificate, diploma and advanced diploma levels. A large number of new opportunities for both training and employment would be generated by the forthcoming Olympics.

The personal and other services category covers diverse occupations such as police, fire, emergency services as well as sectors of personal services such as hairdressing, gardening, funeral directors and ministers of religion. But the main focus of discussions was on hairdressing training and, in particular, there was a discussion about the way registered training organisations (RTOs) could play a part in bringing trainees and trainers together and especially educating employers about the kind of training that was needed.

The manufacturing sector appeared throughout the program, but in one particular session the structure of the industry was used to demonstrate those changes taking place at a progressively faster rate. With older plants closing and new export-oriented manufacturing plants opening, it was felt that there needs to be recognition that the upskilling of the existing workforce is at least as important as training new entrants, and that manufacturing has a poor image in terms of career destination which, among other things, has affected its recruitment of apprentices.

The preceding summarised the first day's concurrent sessions and we began the second morning with Ken Boston giving us a most entertaining, forceful and, in some ways, provocative presentation on how business investment in training continued to decline despite the overtures from VET researchers, and even though now we are firmly focussed on the bottom line. He commented that VET providers and researchers talk more to each other than to business, although certainly that didn't seem to be the case when we had a presentation later from Maureen Morton, but that may not be the general experience. He also said that we had to discover more of what business wants, where and when it wants it. I would like to add to this, that we also have to ask them the question, 'who pays', because I think we will get a remarkably different answer to what industry wants when they know who is paying. Ken told us that there was sufficient research on supply already and that we needed to concentrate on demand. The national reform, he said, has to start at the grass-roots level and he only made a passing reference to this, but I thought it a very important point that perhaps we should have picked up and explored a little further. He also said that the research effort had to have outcomes which were relevant, strategic, digestible and timely. Having made these criticisms of VET, he then concluded by elevating VET to an importance equivalent to reconciliation with Australia's Aboriginal community and constitutional reform. Who knows, perhaps one of the researchers in VET will one day go on to win the Nobel Prize!

Chris Murphy, in the outlook for jobs, provided us with a range of forecasts on jobs. Aggregated, they indicated modest growth for the next two or three years and something better later. Gas, electricity and water; government administration; and education would all be below average growth. Construction; accommodation, cafés and restaurants; property, business and personal services would all have above-average growth. But even with this, the unemployment rate would remain unaffected at around eight per cent.

Marie Pearson, in commenting on this presentation, had difficulty reconciling those forecasts with aspects of her institute's program of studies. Given the gloomy outlook up until now, the fact that she had a course in mortuary assistants seemed to offer good prospects. Marie pointed out that the jobs data was only part of the equation. A question from the floor added that replacement demand was also an important factor. The forecast of growth and declining jobs can, in fact, obscure the demand for training, for much training needs to be done in declining industries, particularly where the decline is affected by changes in technology, work practices or other similar trends. And if you took an example like McDonald's, here is a sector enjoying strong job growth but not demanding anything by way of public-funded training. I think we have to go beyond the simple notions of training being required in growth industries and not being required so much in those that are declining.

Maureen Moreton, in describing Regency's experience and their very successful collaboration with some 80 or 90 businesses, gave us an insight into why so much of what we have heard of characteristics of industries have given rise to frustration and difficulties in reconciling what VET does with what it said it ought to do. The central notion of this conference is training for industry, but it is more likely that training is being done for, or by, the individual enterprise. Industry is merely a collection of enterprises convenient for industry associations, for data collection and analysis, but it's almost meaningless in terms of where the training is required. A focus for the reform, coming back to Ken Boston's point, might be said to be at the grass-roots employer level, and the relationships between providers and those who actually employ people on a day-to-day basis.

The problem with the industry approach came up, I understand, in relation to the agriculture, forest and fishing industry. It was said that this industry covered several distinct sectors and a large number of very distinct groups within each of those sectors. Some key training issues were mentioned, including the ageing workforce, the very low proportion of people with post-school qualifications and the geographically dispersed nature of the workforce, with small numbers in specialised fields making innovative training delivery essential.

The interest in the property and business services sector related to the need for more on-the-job training, the need for greater liaison with industry on course content, the need to develop training courses in line with growth and changes in occupations, and the need to reduce what was referred to as the padding found in some low-level courses.

Training for the transport and storage sector requires a substantial increase in worksite delivery. Both on- and off-the-job training is being delivered at the worksite which suits both the employee and the employer.

The electricity, gas and water sector has been affected by large-scale downsizing and outsourcing and a competition policy. However, although the industry is small, it is still critical, in fact very critical I would say for the wellbeing of almost all industry, as we recently found out in Victoria. I will refrain, however, from commenting on Sydney, Melbourne or Auckland's problems in terms of water, gas and electricity. It has been reported, that in this industry it is generally believed that training is not part of their core business, which again may account for some of the recent problems.

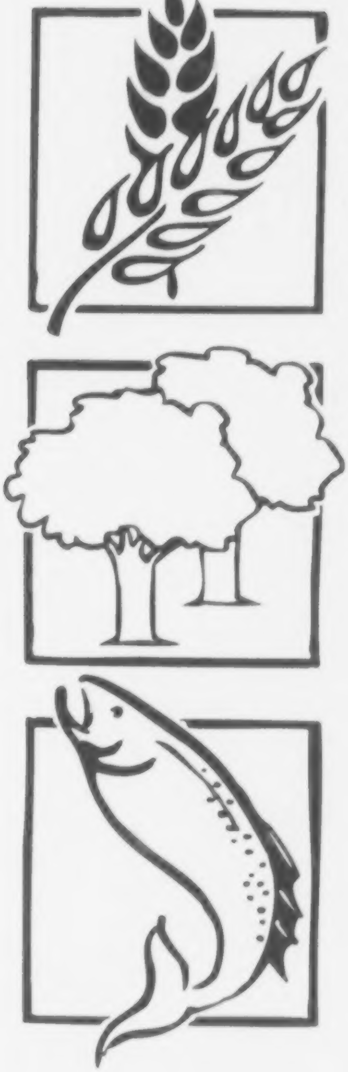
In terms of the tourism and hospitality industry, there is a need to meet the industry's requirements for training for the Olympics and beyond. There's a need to re-introduce, it was asserted, pre-apprenticeship and pre-employment level training, which we heard very little about during the conference. There was seen to be a need to develop new programs specifically aimed at the mature-aged and to develop programs for multi-skilled people who are to be 'Jacks' and 'Jills' of all trades in small operations.

The finance and insurance industry is in the middle of a dramatic change and has been targetted with regulation. Therefore the marketing of VET to the industry cannot follow traditional lines, it has to keep up with these current developments and cut its cloth accordingly.

Mining's an interesting industry, in that the satisfaction surveys which the National Centre for Vocational Education and Research carry out always show a substantial dissatisfaction from the mining industry with the level and content of public training. We found out a few of the reasons for this. While on-the-job training can often transfer bad habits as well as good ones, training for TAFE qualifications is not seen as needed by mining employers but, in fact, is regarded as a way of encouraging employees to leave and go on to jobs elsewhere. The industry also believes that there is too much theory-based methodology in the training. Greater use should be made of competency-based training.

Finally, the education session showed that education is unique in the sense that it is involved in the provision of skills to all the other industries. A range of issues were raised which involved the redefinition of the content of teacher training programs and, in particular, the training of school teachers to deliver VET in schools.

PART 2
Industry training papers



Current and future issues in the forest products industry and the implications for VET

Nick Murray

WHILE THIS SESSION of the conference is dedicated to agriculture, forestry and fishing it must be clearly understood that these three areas of economic activity are not an 'industry' but are three fundamentally different industries.

There are some functional similarities insofar that agriculture, forestry and fishing/aquaculture each involve a cycle of growing, harvesting, processing, and marketing a product or products and some natural and geographical similarities to the extent that they are subject to the vagaries of nature and are relatively dispersed in regional and rural areas.

For the purpose of vocational education and training (VET), it needs to be recognised by those agencies collecting statistics, planning for and funding training delivery by current and prospective training providers, that this is where the similarities end.

The forest and forest products industry is fundamentally different from both the agriculture/horticulture and fishing/seafood/aquaculture industries in the following ways:

- structure
- culture
- work organisation
- ownership of economic units
- industrial arrangements
- politics

The forest and forest products industry can best be described as a vertically integrated industry with the majority of employment involved in value-added manufacturing, sales and distribution processes.

Unfortunately Australian Bureau of Statistics (ABS) data do not provide for an effective definition or accurate employment statistics for the forest and forest products industry.

Their basis of statistical collection and reporting inaccurately reflects the reality that many companies, enterprises, sites and employees within the forest and forest products industry are actively involved, through the vertically integrated nature of the industry, in multiple ABS industry classifications.

The implications of this issue from a VET perspective are:

- the creation of the incorrect impression of common training needs between the agriculture, forestry and fishing industries
- an underestimation of the dimensions of the forest and forest products industry
- the misrepresentation of the specific training needs of each of the individual sectors of the forest and forest products industry
- the misrepresentation of the educational qualifications profile of the forest and forest products industry workforce

The consequence or potential consequence of this situation is the misdirected application of training effort and resources.

Key training issues

Let me now address the key training issues with specific reference to the various sectors of the forest and forest products industry.

The industry comprises the following sectors:

- forest growing and management
- harvesting
- sawmilling and processing
- wood panel product manufacturing
- timber engineered product manufacturing
- timber merchandising
- pulp and paper manufacturing

The majority of training issues are common to all sectors, although there are also issues specific to one or a small number of sectors.

Common training issues are:

- a lower proportion of the workforce possessing post-school qualifications than the average for the Australian workforce as a whole
- significant deficiency in literacy and numeracy competence relative to individual and workplace needs
- thin training markets
- employment either stagnant or in decline
- significant competition from imports
- shift from smaller to larger productive units
- increasing investment in, and application of technology
- absence of an industry and enterprise culture which highly values education and training as a means of developing and maintaining competitive advantage

- underdeveloped VET infrastructure
- demand for flexible training delivery arrangements involving co-operative effort between external providers and workplace-based trainers and assessors
- unattractive to contracted entry-level training agencies (new apprenticeship centres) as a consequence of thin training markets, relatively high cost of some industry-specific training delivery, underdeveloped training infrastructure and geographic dispersion

Outlook for training

There is a significant need for training in all sectors of the industry as evidenced by the statistics relating to the proportion of the workforce possessing post-school qualifications, the inadequate level of literacy and numeracy competence, and the stated needs of industry employers in respect to the introduction of new technology, processes or work organisation.

Solutions to identified issues

These include:

- concerted and co-ordinated marketing effort by national and State industry training advisory bodies (ITABs) in conjunction with competent and committed training providers to sell the benefits of training to industry
- reconsideration of the positive aspects of the direct promotion of industry-specific New Apprenticeships and traineeships through industry-based training liaison/promotion officers which would assist both enterprises and training providers to implement New Apprenticeships
- consideration of release from the user-choice policy where industry (through the national and/or State ITAB) is able to demonstrate the application of this policy is detrimental to the effective implementation of training
- consideration by the Australian National Training Authority (ANTA) and State training authorities of the need for differential funding of high-cost training
- support for providers with specialist expertise establishing niche markets and economies of scale through the provision of 'on-line' training delivery in conjunction with enterprise-based workplace trainers in more advanced and specialised work functions

Innovative training practices in the industry

The industry has already established a delivery strategy involving collaborative arrangements between enterprises and a specialist provider (Box Hill Institute of TAFE, Victoria).

This arrangement involves workplace trainers and assessors being supported by specialist services provided by the institute. The arrangement recognises and builds on the relative expertise of each party, overcoming the inability of the training system to replicate the technology available in the workplace, reducing delivery costs of the external training provider and establishing economies of scale for the external training provider.

We are interested in expanding this concept to other sectors of the industry.

Research required for the industry

As the national ITAB we are interested in pursuing research into which of the 300 units of competence can be supported through innovative and flexible training delivery strategies and the most appropriate medium for delivery.

Any research towards this end must be undertaken in consultation with the national ITAB and must embrace the cultural, industrial and technological realities of the industry in order that any subsequent initiatives deliver practical, meaningful and effective outcomes to industry, enterprises and workers.

Rural training

Glennyss Leyne

Meeting the future skills requirement of industry

TO SURVIVE AND thrive in agriculture, farmers need to be innovative and flexible. With the endorsement of the Agriculture Training Package in February 1998, the agriculture industry is optimistic that, at last the industry will receive the training delivery to assist it in gaining the skills required to meet present and future needs. The package is deliberately very flexible with only six mandatory units required across all sectors. The reason for such flexibility is to ensure that the needs of individual enterprises are met.

The development of this training package has seen new sectors, which have never before had competency-based training, become involved and take up this training concept with enthusiasm. An example is the cotton industry, a very independent group of farmers who have for a long time delivered training on the job but without formal recognition of skills for their workforce.

Increasingly, agricultural and horticultural enterprises have to meet quality assurance standards to sell their produce on both the domestic and international markets. It is becoming recognised that special training effort is required to enable farmers to meet these requirements.

Traditionally, much of the education and training for agriculture has been done on the farm, via extension programs, short courses, field days etc. It is becoming clearer, as many providers start to work with the training package, that they are in many instances not dealing with full units of competency but elements of units. Under the present system it is not possible to gain statements of attainment for anything smaller than a unit. Since the opportunity for farmers to be away from the farm for more than one or two days is virtually impossible to arrange, the Rural Training Council of Australia (RTCA) has raised this issue with the Australian National Training Authority (ANTA). This is viewed as an extremely important issue, particularly in agriculture and horticulture which operate largely as micro-small businesses. If people can gain recognition for elements from extension programs it may offer them an encouragement to pursue full qualifications and raise the training ethos within the industry.

What qualification levels tell us about skill levels

Australian Bureau of Statistics (ABS) figures for the agriculture industry show two categories 'skilled farm worker' and 'unskilled farm worker'. National Centre for Vocational Education Research (NCVER) figures also do not enable us to fully identify the level of vocational education taking place in the agriculture industry.

When asked about education beyond secondary, many farmers do not include extension programs and field days since these don't fit into any category. So if they don't hold a formal qualification, what can be said about their skills levels? Those in the industry who are passionate about education and training hope that competency-based training will open up a range of opportunities for people to have their skills assessed under recognition of prior learning (RPL) processes and at last gain recognition for the skills they possess. What do qualification levels as set down by industry tell us about skills levels then? If assessment is carried out in accordance with the guidelines, farmers will be encouraged to advance their learning; the high levels of competency they have will be recognised; career pathways for young people who up to now have considered agricultural work 'down market' will be opened.

Innovative training practices

The flexibility of both the agriculture and horticulture training packages followed the pattern set by the highly successful National Rural Skills Traineeship and National Amenity Horticulture Traineeship. Why did these traineeships prove so successful? Flexibility. Like the training package, they each had only a handful of mandatory units, and the employer and training provider, together with the trainee, added electives to make up a training program that would satisfy the needs of the enterprise and the traineeship.

With many enterprises located in remote areas and unable to release staff to attend block release programs, the rural industry views on-the-job assessment as a vital part of training packages. Only registered training organisations (RTOs) can issue qualifications but assessors from RTOs may not be competent to assess all units of agriculture and horticulture. The RTCA has therefore developed some tools to assist on-the-job assessment, cut costs and encourage partnership arrangements between employers and RTOs.

Competency record books have been developed to cover each unit of competency. Using CD-ROM training, providers will be able to make up competency record books to accommodate each learner. Furthermore, the RTCA has developed a series of video/workbooks to assist the trainer/employer.

The RTCA has found the technique of presenting training through the use of videos to be very popular. People comment that they can relate to the situations presented and feel comfortable with the format—and learn a lot—which is after all what we are wanting to achieve.

How do we attract bright young people to enter and stay in the industry? It is an unhappy fact that many successful farmers do not see agriculture as a career path for their children and the best and brightest are sent away to further their education in universities etc. If agriculture is to survive and thrive, it must attract such young people into the industry. RTCA has developed a set of career guides for all sectors of the industry covered by the training package. These guides give clear career pathways which, it is hoped will encourage young people to consider agriculture as a real alternative.

Training is more than catching: Meeting future skill requirements of the Australian seafood industry

Ross Ord

Introduction

THE FISHING AND seafood industry in Australia is a vibrant and dynamic industry with a history of mainly small operators performing profitably in a mostly non- or semi-regulated environment.

The industry's importance to the Australian economy has always been significant and in 1997–98 was valued at $A1.9 billion, of which over $A1.3 billion was exported. Over 28 000 Australians are directly employed in the industry with more than twice that figure employed indirectly in, for example, food retailing. Due to its dispersed nature, seasonal factors and changing products, the industry's regional impact varies considerably, from being absent entirely in some regions to being the major employer in others and providing employment to the majority of the local population.

The desire for continued industry growth and commercial success in an increasingly regulated and competitive environment prompted a review of the structures and policies traditionally underpinning the operation of the fishing and seafood industry. One area reviewed was the way skills training was occurring across the various industry sectors. In response, the peak industry body lobbied for and was recognised as the industry training advisory body (ITAB) for the seafood industry, and in 1997 initiated the development of an industry training package. This project has helped to identify future industry skill requirements and related issues which must be addressed if the industry is to remain viable.

The industry is promoting the view that what has been traditionally accepted in some quarters as several industries is in reality one industry. In this paper the Australian seafood industry is viewed as consisting of three primary sectors: wild-catch fishing, aquaculture and post-harvest, with post-harvest encompassing processing and distribution.

Industry trends

Fishing output is expected to grow an average 2.2 per cent per annum 1995–2002. Much of this increased output will be met from the growing aquaculture sector in which value of production is expected to increase from $A465 million 1995 to $A1365 million 2005.[1]

The increased output reflects heightened local and export demand for seafood products. The value of exports is expected to grow from $A1.3 billion in value for the financial year 1995/96 to in excess of $A2.0 billion by the year 2000.

Employment characteristics of the industry

The Australian seafood industry is a small industry in terms of employment with 28 000 employees or 0.3 per cent of the nation's employed workforce. The labour force has the following characteristics:

- Marine fishing employees are 66 per cent of those engaged in commercial fishing activities with aquaculture at 33 per cent.
- Overall employment growth in marine fishing is predicted to be static in the next ten years.
- Significant growth is forecast for the aquaculture sector, 1995–2005 with one study predicting an annual growth in employment of 19 per cent by 2005.[2]
- Males make up over 80 per cent of employees in the commercial fishing sector with over 75 per cent employed full time.
- Females comprise up to 78 per cent of workers in the processing sector.

The seafood processing sector (5000 employees) has a high percentage of part-time, female employees working casually with high turnover. Businesses in all sectors are typically small and decentralised with over 95 per cent having less than ten employees.

Employment is heavily decentralised and regionalised. There are concentrations of ethnic groups such as Greeks, Vietnamese and Chinese, particularly in processing, wild catch and wholesaling. The workforce is stratified with limited career pathways. Mobility within and between sectors is limited.

Several trends are evident in the seafood industry. There is a move to larger, more economically viable operations largely attributable to an increase in the number of enterprises which are vertically integrated. This has an important implication for the future industry training requirements and the need for flexible arrangements.

Training issues

The training culture in the seafood industry is not well developed. Skills training and the essential knowledge that workers need to do their job have traditionally been handed down at the place of work from employer to employee. There has been some formalised training conducted in technical colleges and special-purpose facilities but, by and large, this has been the exception to the rule. Most courses have been developed to satisfy local requirements and have not been co-ordinated nationally or even between regions or adjoining fisheries.

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[1] Department Primary Industry and Energy 1997 based on statistics provided by State aquaculture managers.

[2] Department Primary Industry and Energy 1997 based on statistics provided by State aquaculture managers.

Available data indicates that at present, the demand for structured training or vocational education and training (VET) qualifications by industry members or those wanting to enter the industry is not strong. Although several traineeships funded by State governments and designed to address local seafood industry needs have been developed in some States in recent years, these are not nationally co-ordinated.

A key issue is the need for fishing operators to hold a licence to operate (and depending on the size of vessel, maintain) a fishing vessel. At present, the licences are based on the completion of a course based on various curricula and passing an oral examination set by the regulatory authorities. The system is not competency based.

State and Territory authorities responsible for food handling will soon require all people working in the food industry to have skills and knowledge in food hygiene. Through initiatives such as Seaqual,[3] the seafood industry is already responding to the need to increase the focus on hygiene and safety in handling fish and other seafood products. Providing the necessary training to all seafood industry members, whether on a prawn boat, abalone farm, processing plant or at the fish market is an important training issue only partially addressed.

There is an absence of qualitative data on the potential for New Apprenticeships in the seafood industry. The traditional method of payment for deckhands etc. is a share-fishing arrangement based on percentage of catch, akin to share farming in agriculture. This arrangement is seen by some as a barrier to the introduction of New Apprenticeships.

Training outlook

The peak body for the Australian seafood industry is the Australian Seafood Industry Council (ASIC). ASIC's charter is, on behalf of the seafood industry, to promote long-term viability, industry development and commercial success of industry members in a climate of resource sustainability.

In 1997 ASIC gained recognition as the national ITAB for the seafood industry. A responsibility of the seafood ITAB, called Seafood Training Australia (STA), is to oversee the introduction of competency-based training through the development of an industry training package.

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[3] Seaqual is a major initiative between the Department of Primary Industry and Energy, the Fisheries Research Development Corporation and ASIC to increase awareness and the adoption of appropriate quality management principles across the whole industry, especially as they pertain to the handling of seafood.

Seafood Industry Training Package

Missing from the jigsaw necessary to introduce competency-based training (CBT) throughout the seafood industry are competency standards. Consequently, the main focus in developing the Seafood Industry Training Package is on the development of competency standards for all sectors of the industry. The drafting of the competency standards has commenced following the completion of a research phase to set the guidelines for follow-on work, and the training package development process will be sequential. Implementation of the essential components of the training package will take place in the second half of 1999 with the development of learning materials, assessment tools and professional development materials.

Future training needs

This paper has highlighted the need for solutions to current and potential training dilemmas in the seafood industry. Possible solutions include:

- Partnerships between industry members and registered training organisations (RTOs) will be essential for the introduction and maintenance of an assessment system which is accepted by the industry and regulatory authorities.
- Flexible traineeships must be arranged which cater for the unique aspects of the industry, such as a seasonal part-time workforce and payment by percentage of catch.
- By working closely with key groups such as the Transport and Distribution ITAB and the National Maritime Safety Council (NMSC), the new seafood industry competency standards and licensing requirements for small vessel operators (including fishermen) can be linked.
- Flexible VET qualifications and training delivery will be enhanced if the core units from the Food Industry Training Package are included in the core for the Seafood Industry Training Package.
- The training requirement by all food handlers to satisfy proposed health and food regulations to be introduced in all jurisdictions should be based on industry competency standards not necessarily a full qualification.
- Training programs will need to be developed with sufficient flexibility to cater for and take advantage of closed fishing seasons in various jurisdictions.

Conclusion

The Australian seafood industry covers a diverse range of activities from catching and farming seafood and seafood products to processing, retailing, marketing and exporting Australian seafood. Over the next ten years a growth in the annual gross national production from its current level of $A1.9 billion is predicted and there is clear potential for growth in the aquaculture sector.

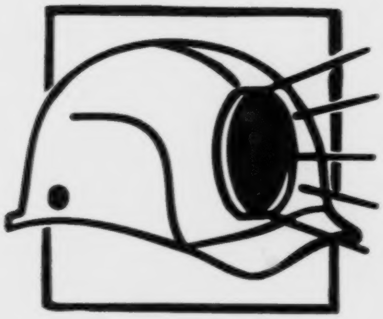
The seafood industry is making significant progress in identifying current and future skill requirements in each sector of the industry. The projected growth of the seafood industry demands that the industry's training infrastructure provides the necessary structure and training opportunities for current and potential employees if the industry is to remain internationally competitive and take advantage of opportunities offered.

The development of the Seafood Industry Training Package will be the vehicle for introducing CBT in all sectors of the industry. The training package will not, in itself, be sufficient to address the industry's future skill needs. There are a number of training-related issues which must be addressed for the industry to progress and remain viable. One such issue is the challenge that proposed changes to licensing and regulatory requirements will place on the delivery of training. The primary benefit of the package will be to facilitate the implementation of a culture where vocational education and training provided for the industry addresses the skill needs of the industry in a consistent, timely manner.

The unique characteristics of the seafood industry workforce must be factored into any response to meet future training needs. Many industry workers, with little interest in gaining a national qualification have expressed strong support for short, flexible programs that address their particular needs.

Support structures such as the recognition of prior learning (RPL), workplace assessment and an industry training record system will need to be developed as part of the strategies to cater for future skill needs of the industry.

Many of the training-related issues raised in this paper are being addressed by the seafood industry for the first time. Government and other agencies need to recognise that responding to them is not a short-term project; however, identifying possible barriers to the industry meeting its future skills requirements and deriving possible solutions are important steps in achieving this important goal.



The perfect partnership: Innovation in driller training

Rod McCallum

Introduction

IN THIS LATTER part of the millennium, it's easy to become blasé about the pace of development, particularly when almost every day we hear of some new technological miracle. But if the rate of change in the drilling industry for the first 60 years of the twentieth century is considered and then the technological changes achieved in the last decade are plotted, one is forced to conclude that here is an industry on the move!

There appears to be no limit to the imagination of many people working in the industry or to what is achievable, and yet, as an industry internationally, we are still struggling to establish the 'artistry and craftsmanship' of the driller as a profession.

Technology transfer is taking place, together with advances in design of instrumentation on the drilling rigs of today, in order to provide more accurate assessment of the operating parameters down-hole. This is placing much greater emphasis on the role of the driller, elevating him from an operator, no matter how skilled, to a technician with a much expanded range of skills.

Today, drilling is recognised as both an art and a science.

How the partnership began

During 1994, an entry-level Driller's Assistant Traineeship was conducted by the Central Metropolitan College of Technical and Further Education (TAFE), Perth, for approximately eight trainees, utilising 18 training modules developed by two West Australian drilling consultants.

Prior to development of these training modules, there had been no formal off-the-job training available to drilling industry employees. All training, with the exception of one- or two-day short courses conducted by the Australian Drilling Industry Association (ADIA) or the Australian Drilling Industry Training Committee (ADITC), and a distance learning program developed by the latter organisation, was hands on, on the job. Inherent in this method of training is the problem of the employee or trainee learning the 'bad habits' of the trainer which he then passes on, thus setting up a vicious cycle. That cycle was broken through the establishment of the Driller's Assistant Traineeship.

That first traineeship was considered successful by the Western Australian employers who provided participants, but ended disastrously when the funding agency refused to meet a previously agreed financial commitment to the employers for re-imbursement of transport costs of the trainees from their job sites to Perth to attend the traineeship at TAFE. As a consequence, and until quite recently, Western Australian drilling contractors refused to support further Driller's Assistant Traineeships.

When the ADITC and Pontil Pty Ltd, mineral exploration drilling contractors based in Dubbo, became aware that the Driller's Assistant Traineeship modules were available, negotiations commenced in Dubbo to have the traineeship registered in New South Wales.

The first group of trainees comprised both new entrants to the drilling industry and a number of Pontil's existing employees who attended off-the-job training at Dubbo TAFE in four, two-week blocks, totalling approximately 400 hours. They completed their traineeship in November 1996. Following the success of the initial traineeship in 1996, Pontil decided to run it again in 1997.

The relationship: Establishing the partnership

While the Driller's Assistant Traineeship had proved worthwhile, Pontil management had concerns that:

- Removing a large group (15 personnel) from its workforce scattered all over Australia, on block release to Western Institute of TAFE (WIT), Dubbo four times during the year created a logistical nightmare. Some projects were shut down or reduced to a single shift operation with consequent loss of production and earnings.
- It was time-consuming and expensive to fly trainees from remote projects scattered throughout Australia (where traditionally the majority of mineral exploration drilling takes place), and accommodate them in Dubbo for the duration of the traineeship.
- Trainees were paid their normal rate of pay throughout the traineeship and some tended to view their time in Dubbo, as a 'paid holiday'.
- The attention span in the classroom of some trainees was limited, a consequence of too much 'chalk and talk'.

Despite the perceived shortcomings, Pontil persevered with the traineeship, culminating in one of their trainees winning the Central Western Region of NSW Award for Trainee of the Year in 1997. Clearly, however, a different approach to entry-level training for the drilling industry was needed.

In mid-to-late 1997, mineral exploration drilling contractors began to experience a significant downturn in surface drilling activity. Conversely, an increase in underground drilling operations was taking place, necessitating a change of focus in Pontil's training effort from surface to underground operations. To forestall potential retrenchment of surface drillers, the company decided to implement an innovative underground drilling training program to provide multi-skilling for their existing employees, plus entry-level training for new employees, in order to meet this growth in underground exploration drilling activity.

In February 1998, Tom Browne of Pontil Pty Ltd and I established the company Drilling Training Services Pty Ltd (DTS), to market, develop and deliver training packages for the mineral exploration sector of the drilling industry. In February and March 1998 I visited South Africa, Zimbabwe, the United Kingdom, the United States and Canada to establish what resource-based training relating to drilling was available in these countries and whether it could be satisfactorily adapted for Australia.

With the exception of a one-year, full-time, broad-based course covering waterwell, blast hole, mineral exploration and geotechnical drilling presented in Lindsay, Ontario, Canada and a groundwater drilling training scheme offered by the National Groundwater Association in America, there was nothing comparable to the existing Driller's Assistant Traineeship.

Nevertheless, Drilling Training Services was convinced that improvements to the Driller's Assistant Traineeship were needed. A more hands-on approach was required to obtain improved results for the dollars and effort expended on drilling training. DTS approached WIT. It was subsequently agreed there was merit in establishing a partnership to develop a more appropriate course.

A memorandum of understanding was signed by both parties prior to commencement of the first underground mineral exploration drilling training program on 18 May 1998. Simultaneously, agreement was reached concerning utilisation of WIT Dubbo Rural Skills Centre (Bourke Hill Site) for this new training program. Elements from the existing Driller's Assistant Traineeship were used together with new modules developed by DTS specific to underground drilling operations.

Of critical importance to the program was the availability of a site at Bourke Hill campus to set up drilling equipment. The rear of the existing workshop at Bourke Hill lent itself ideally to development of a replica underground drill cuddy, thus enabling DTS and Pontil to install a brand new, fully operational underground drilling rig to closely replicate drilling conditions in an underground mine.

Other required support systems were already in place, such as a large workshop for welding and hydraulics classes, well-equipped classrooms for face-to-face presentations on subjects with a literacy and numeracy component, and dedicated office space for DTS and Pontil staff.

Since May, five underground training courses have been completed, with 30 participants involved, and a further three courses are expected to be completed prior to Christmas.

Each course runs for three weeks, with six trainees, split into two crews which alternate between operating the drill rig and attending classes six days per week, ten hours per day. While one crew drills for five hours, the other crew is in the classroom, although there are occasions when crews attend classes together to reduce duplicate presentation and hence duplicate charges for TAFE teacher time in the classroom.

The WIT Rural Skills Centre at Bourke Hill is almost directly opposite a caravan park on the outskirts of Dubbo. To replicate field conditions at more remote drilling locations, course participants are accommodated in self-contained cabins, equipped with cooking facilities, bunk style bedrooms and ensuite bathrooms.

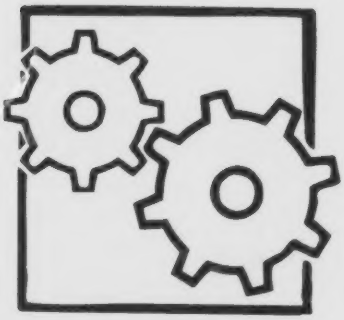
Conclusion

Pontil and Drilling Training Services' financial commitment to assure the success of this training venture, cannot be underestimated. Recognisable benefits have flowed from:

- improved morale amongst employees who appreciate the ability to obtain formal recognition of their skills, not available previously
- accelerated career path progression for trainees
- a well-developed, nationally recognised training scheme for new entrants to the drilling industry
- a competitive advantage for the company

The nature of the surface and underground drilling industry workforce, shiftwork and the geographic spread of employees across many remote areas of the continent and overseas, necessitates a flexible approach to training, and we believe we have achieved this through the unique partnership of the players involved.

There is no doubt that overall, improved skilling of the workforce is leading to improved profitability, making it all worthwhile.



Process manufacturing industries today

Jeremy Gilling

I WOULD LIKE to focus on two broad themes. The first is the historical experience of our industry's restructured arrangements, and particularly the background to, and the reasons for, the low level of uptake within our industries. And secondly, I'll comment on some of the measures that could be initiated to turn this scepticism, bordering on indifference, around. And on that second point, I turn to some important findings that have arisen from an examination of the United States process industries which has been undertaken by a close colleague, Raju Varanasi, in the course of his 1997 Fullbright Fellowship.

I would like to present some basic information about our industries—the process manufacturing industries. Roughly 20 per cent of total manufacturing comprises process manufacturing industries and falls into four broad groupings:

- the chemical, hydrocarbons and oil refining cluster with about 55 000 workers
- plastics, rubber and cablemaking, with about 45 000
- the non-metallic mineral products manufacturing group (the building products of cement, concrete, glass, ceramics), with about 40 000
- iron and steel with 30 000

So that is a grand total of about 170 000 or around 20 per cent of total manufacturing.

The critical issue for all of these industry groupings, and the plastics industry is a partial exception to this, has been the precipitous decline in employment experienced over the past decade. Process manufacturing's employment in aggregate has declined by about 20 per cent over this period, which compares to about a three per cent decline in manufacturing as a whole and around an 18 per cent increase in employment across the whole economy. The figures reflect a dramatic downsizing in the larger enterprises, many of which have shed 50 per cent or more of their workforce over the decade, and the closure of a number of major work sites across all process manufacturing groupings in every State.

We also know that this unfortunate trend is likely to continue for some years. The foreshadowed closure of BHP's steelmaking operations in Newcastle is a case in point. And it's probable that the eight current major oil refineries in this country will be rationalised to four or perhaps five over the next three to four years. I did mention to you that the plastics industry is a partial exception to this trend. There will continue to be a dramatic exponential growth in world consumption of polymers.

There is, however, a silver lining to this and the first point is that the process manufacturing industries have always invested substantially in training. The process manufacturing industries are basically the three industry groupings: petroleum coal chemical and associated products; non-metallic mineral products; and about 20 per cent of metal products. And you can see that in the second column of table 1 those three groupings spend $264, $253 and $244 on training per employee. That was in the September quarter of 1996, as compared to $194 for general manufacturing. And a similar picture emerges if you look at the training per employee measured in hours of around five to six hours per employee as against 4.9 for the industry as a whole.

Table 1: **Measures of training expenditure by manufacturing industry sub-division and for all industries, September quarter, 1996**

Industry	**$ per employee**	**Hrs per employee**
Food, beverages and tobacco	171.34	5.50
Textiles, clothing, footwear and leather	84.64	2.76
Wood and paper products	173.86	4.56
Printing, publishing and recorded media	105.44	2.72
Petroleum, coal, chemical and associated products	263.59	5.21
Non-metallic mineral products	253.00	6.60
Metal products	243.86	5.96
Machinery and equipment	259.58	7.86
Other manufacturing	52.52	3.86
Total manufacturing	**194.28**	**5.42**
All industries	185.49	4.91

Source: ABS, *Employer training expenditure, Australia, July–September 1996*, cat.no.6353.0

So that's the first point. Our industries are substantial investors in training. The second is that the process manufacturing industry is also substantially more technologically innovative than manufacturing as a whole—about one-half to one-third times more innovative.

Table 2: **Proportion of businesses undertaking technological innovation by industry sub-division, manufacturing, 1996–97**

Industry sub-division	Product (%)	Type of innovation process (%)	Total (%)
Food, beverages and tobacco	33.0	29.1	36.3
Textiles, clothing, footwear and leather	14.7	13.6	15.4
Wood and paper products	11.8	12.0	15.7
Printing, publishing and recorded media	17.6	20.7	25.6
Petroleum, coal, chemical and associated products	34.8	29.3	42.1
Non-metallic mineral products	32.6	20.7	35.5
Metal products	20.3	12.7	21.1
Machinery and equipment	33.0	19.8	35.3
Other manufacturing	18.9	14.7	20.9
Total manufacturing	**22.9**	**17.8**	**26.0**

Source: ABS, *Innovation in manufacturing, Australia 1996–97*, cat.no.8116.0, table 1

My problem as a representative of an industry training advisory body (ITAB) is to reconcile, on the one hand, this high level of training activity and technological innovation, combined with an enthusiastic embrace in many of our key organisations of workplace reform and team-based work structures with, on the other hand, one of the lowest workforce proportions with formal post-school qualifications of any industry grouping. The problem is particularly marked in process manufacturing. On one estimate only about five per cent of the operational workforce within process manufacturing has formal post-school qualifications. So how do you explain this paradox? The quick answer, which I think nonetheless holds a substantial kernel of truth, is that our industries adopt a 'scatter gun' approach to training. They throw training dollars at problems and issues as they arise—an environmental scare such as a chemical spill; new occupational health and safety (OH&S) or environmental legislation; or the introduction of new technology such as a sophisticated distributed control system. So that often is a large part of the answer.

The other part of the answer, I would suggest, is the historic failure of our training systems, and particularly our publicly funded training system, to address the specific training needs and requirements of our enterprises and industries. Secondly, the challenges to training organisations posed by shift work, often combined with remote locations. The shameful statistic of 42 per cent of manufacturing firms, and again I would suggest the figure is substantially higher in process manufacturing, who are broadly dissatisfied with vocational education and training (VET) has already been raised. And thirdly, the historical neglect by our education and training systems over a large and largely forgotten segment of our society who, until fairly recently, we could conveniently consign to the many unskilled jobs that were there for the taking.

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So I would argue that there are a number of challenges we must meet if Australian process manufacturing industries are to survive and prosper. Two in particular that I would like to mention are firstly, a reversal of what's been aptly described as the good job/bad job syndrome in which vocations such as law and finance, which in my opinion are, at best, of marginal value to society, are seen as the route to success and prestige, while manufacturing (and also teaching) is for most of our best and brightest seen as the destination of last choice; and secondly, an explicit recognition by our funding authorities that in industries such as process manufacturing with static or declining workforces, the upskilling through formal training of the existing workforce is as legitimate an outcome, and as deserving of financial incentive and support, as the training of new industry entrants.

The research undertaken by Raji Varanasi into the United States process industries and the relevance of his finding to the Australian scene has already been raised. An important point is that, although the process industries in the United States have faced similar challenges to Australia and, in particular, the intense competition from low-cost, high-volume producers in Asia and elsewhere, they are on the whole strong and expanding. Obviously their technological sophistication and the size of their domestic market has a lot to do with this but there are other relevant factors identified by Raji which we need to take into account.

The first of these is the strength of their *regional alliances* model. Raji has studied the Gulf Coast process technology alliance which covers the gulf coast region of Texas which accounts for about 60 per cent of output from the United States process industries. This alliance comprises 26 major companies and 11 community colleges as well as government and community representatives and is built on a strong, conceptual and operational foundation with mutually agreed multi-lateral roles for industry, educators, labour, government and the community.

The second is the production by these alliances of so-called *base line studies* which identified right down to the level of the firm, the current and projected skill shortages and skill development requirements based on round table discussions and detailed research. Government and educators are able to plan and target their labour market and training to meet real and precise industry needs.

The third is their investment in and the success of skilled work *Techprep* programs. Work-based learning has a much more hallowed and widespread role in school education in the United States than it does in Australia. And at least one highly beneficial outcome is that manufacturing is an acceptable, even a desirable destination for talented students.

Community colleges in the United States, broadly equivalent to our TAFEs, have a strong and growing role in American education. The community college associate degree they offer is by far the most rapidly expanding qualification in the United States system. And, as noted, they work very closely with local industry through the regional alliance network.

Another important point, is that *professional associations*, representing either industries or occupations, play a far more active role in training and skills development initiatives than their Australian counterparts. Raji's sponsor, the American Chemical Society, for example, is the driving force for professional and skills development for petrochemical industries in the United States.

Finally, a word about *skills standards* in the United States where standards are seen much more as a tool, as distinct from a framework or benchmark, as is the case in Australia. Americans recognise that occupations often change beyond recognition within a remarkably short timeframe and that in this context skills standards can only ever be a resource to tap into and customise as circumstances dictate. They also focus far more through their skills standard system on entry-level skills development, believing that longer-term skill and expertise is the province of the individual enterprise.

Of course, it goes without saying, that the United States is very different in crucial respects from Australia. In particular, it is far more entrepreneurial, and is suspicious of central authority, major reasons for their essentially local and voluntary approach to skills development and structured learning. Nonetheless, we should take careful note of United States practices and how they differ from those in our own system.

Manufacturing training perspectives

Bob Paton

THE THEME OF the conference relates to the training outlook for the industry—current developments and appropriate responses—and I guess it is easy to get some indicators from some of the information and the data around. Some indications are available from qualitative research; that is, where people think we might be going through an examination of current trends. However, there are some key issues that we need to consider in terms of what's happening right now and how they will impact on the future in terms of training as well.

It was suggested to speakers at this conference that they don't focus on today's problems. And that's fine except that today's problems will also be tomorrow's unless we do something about them. Therefore I want to focus on what we hope to do about some of the current problems and the difficulties. A range of concerns such as the current set of training reform issues has already been discussed. But when it comes down to it, all the major issues concern people who are actually involved in industry, so a large focus is going to be on people.

There are, in my view, major challenges that the Manufacturing, Engineering and Related Services Industry Training Advisory Body (MERS ITAB) has to confront. Our ITAB covers the manufacturing, engineering and the aerospace industry. The aerospace industry covers those people who make, fix, repair and maintain aircraft as opposed to those who fly them and provide cabin services. Nevertheless, it's difficult because the figures given in the Australian and New Zealand Standard Industrial Classification (ANZSIC) industry breakdown does not capture the whole industry in the way we see it. If somebody asked me for an estimate of the number of people in the metal and engineering industry, the figures I gave would depend upon whom I was trying to influence, but a common figure that we use is 700 000 workers. This may be considered a substantial number and the figures don't appear to show this. In fact, what we do know is that there are people that use metal and engineering skills in a range of other industry areas, and whether they are included depends on who counts the figures and when they are counted. Another example I can offer is the research showing that in 1995 there were 25 000 fitters in the retail industry. The section on the manufacturing industry in the National Centre for Vocational Education Research (NCVER) publication shows metal and engineering skilled people in other industries, how they are used and how they are affected. We cannot therefore just say that the metal, engineering occupations are found only in manufacturing industries per se, because the sorts of skills we are talking about are used across a range of industry areas. One of the issues that has emerged from these points above, and one of great significance is the lack of attractiveness of working within the industry. If young people aren't attracted to working within the industry, and I'm talking about occupational foci in a range of areas, then we don't have the people to replenish the skills required, whether we are in a globalised market or not.

The second challenge concerns stimulating training organisations to respond to industry needs. Clearly, if the training organisations of tomorrow can't give the sorts of training that industry wants, the partnerships aren't working and a major component of the skills development will be lost.

And the third challenge relates to planning strategies to accommodate industry training needs as well.

In 1997 the Victorian Engineering Skills Training Board commissioned a survey and research which resulted in a report by Bob Marshman & Associates.[1] What Marshman found in the research, which was investigating a significant downturn in apprenticeships in Victoria, was that there were some major factors that impacted on this. Apart from the economic factors, one of the major ones related to the poor industry image. Marshman cites a number of instances of lack of interest in the industry; for example, when employers were looking to take on apprentices or trainees, they found, in fact, there weren't many takers. A Melbourne-based company with strong growth prospects advertised widely, at considerable expense, for apprentices for no result. The next step involved promotion in a major shopping centre with high-tech equipment on show and again no result. After two years of cost and frustration, tradespeople were recruited from the United Kingdom, South Africa and Switzerland. So there's some pretty strong messages in there.

One is that if the industry is perceived as dirty smokestack industry stuff, then somehow we need to show a lot of young people in Australia that this is not the case. There are some exciting and useful careers and manufacturing, certainly metal and engineering, skills are applicable across a wide range of occupations in many industries.

Another relevant factor is strong public promotion of the competing service industries by government and industries as growth areas. We certainly need them, but their ascendancy has been at the expense of some of the more traditional areas because people see bright and exciting occupations and jobs and careers in these enterprises. I'm not suggesting that government and industry promotion of these areas should not have been done but, maybe, parallel action should have been undertaken to try to retain the slice of the market of young people for the manufacturing industries.

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[1] Bob Marshman & Associates 1998, *Employment of apprentices: On the brink of crisis*, Bob Marshman & Associates, Melbourne.

There are widely held views that jobs in the manufacturing industries are low-skilled, low-paid, dirty and with few career advancement prospects. There are clearly some jobs that some people would not wish to have. There are, however, many, many other jobs that young people have no knowledge of, because they haven't had exposure to those areas where there are bright prospects for careers and interesting, exciting and innovative sort of work.

These are some of the issues that we have looked at and the challenges we have confronted. The MERS ITAB is promoting the industry as providing exciting career opportunities for young people, and in doing so we have produced a video that we have distributed to every secondary school in the country. It's crucial to try to show young people that there are attractive careers in manufacturing because we can't keep on drawing people from overseas. There is a limit as to how far we can continue to retrain the existing workforce, and whether there is a willingness and the opportunity to do so is another matter. But certainly, we see attracting young people as crucial to the development of a vibrant, responsive workforce which will meet the needs of the enterprises.

Fostering school and industry links and the VET in schools programs currently under development continues to be a crucial element of this strategy. VET in Schools does not just mean New Apprenticeships and part-time trainees and apprentices. It means people in secondary schools undertaking VET. In the words of today and tomorrow and next year, training to VET outcomes will be in terms of competency standards; it means that people will have either completed or partially completed periods of study so that they are industry-competent in some areas of workplace competency.

So developing and enhancing VET in Schools programs, promoting careers to young people, fostering the schools-to-industry links, we see are positive ways of actually trying to promote careers within the industry itself.

The final issue I want to raise is the importance of training packages. The introduction of training packages to sectors in manufacturing has changed things, to the point where the outcome of training is expressed in terms of workplace competency or industry competency standards. This is a key development in setting the future of training in these industries.

International Fibre Centre: A study of training innovation

Lynn Glover

Introduction

THE FUTURE OF Australia's fibre industry is closely linked both to the strength of wool and cotton exports and to the domestic textile and clothing industries. All stages of the value chain need to continue to operate and increase competitiveness to capitalise on areas where Australia has a competitive advantage.

The Australian textile, clothing and footwear (TCF) industries have an annual turnover of $9 billion, exports of $1 billion and employ approximately 100 000 people. The TCF industries are facing a number of challenges, including reduction in tariffs, the pressure of imports, barriers to entry in export markets, current cost structures and the requirement for new capital investment. In meeting these challenges the industries will need to maintain sufficient scale of operation and diversity if they are to survive in the long term.

The world fibre market is dominated by synthetics and cotton. While wool comprises only four per cent of the world fibre market, Australia is the major wool producer of apparel wool (724 000 tonnes) and a major exporter of cotton (2.5 million bales). In 1995–96 Australia produced 27 per cent of the world's greasy wool; 70 per cent of the fine wool; and 46 per cent of world exports of wool valued at $3.5 billion. As the world's major wool-producing nation, Australia has a unique stake in ensuring that wool continues to be used in the production of clothing and textiles.

Challenges for the Australian fibres, textile and clothing industries include:

- improved communication through the value chain from the fashion consumer to the fibre producer
- adoption of a market-driven approach so the whole industry keeps pace with trends in fibre, textile and fashion design
- adoption of innovative processing and management systems which are based on the latest research and development

- innovative manufacturing systems managed by skilled labour with strong technical skills
- innovation in fibre blends
- improvements in quality
- continued microeconomic reform

The Victorian Government established the Natural Fibres Institute Review Committee (NFIRC) in 1995 to:

- identify the demand for training at all levels of textiles processing
- develop a detailed training program for technical and further education (TAFE) and universities
- determine training delivery options
- identify the need and extent of such investment in plant and equipment as may be necessary to support training through access to modern textile processing facilities
- assess opportunities to support product development

The Victorian Government supported the recommendations of the 1996 NFIRC report, in particular the establishment of the Australian Fibre and Textiles Education Centre, now known as the International Fibre Centre (IFC).

International Fibre Centre

The IFC has been established to assist industry to compete in the future when the drivers of competitive advantage will be increasingly reliant on knowledge and innovation. The IFC will be used to underpin the essential development of management and operational skills and adoption of innovative technology which is critical to a world-competitive textiles industry.

The IFC will support expanded tertiary training and education in textiles through the provision of world-class manufacturing facilities, focussed practical operational training, and product development. The IFC will be a link between the textile industry, education and training providers and research institutions, the aim being the production of better quality textiles in Australia. The IFC will not operate as a training provider.

The Victorian Government is constructing facilities for the IFC. The IFC will operate from two sites in Victoria:

- a pilot wool processing plant at Geelong, on the Waurn Ponds Campus of Deakin University. An added feature of the Waurn Ponds development is the co-location of the IFC with the new wool and horticulture facility of the Gordon Institute of TAFE. The wool facility will comprise a shearing shed, wool-classing rooms, and integrated wool storage and handling area
- a pilot cotton and non-woven processing plant at Melbourne, on the Melbourne Institute of Textiles Campus at Brunswick

Both facilities will include classrooms and quiet areas to support production environment training.

The Victorian Government has fully funded the purchase of equipment and the design and construction of facilities. This is a capital investment of approximately $25 million. The two facilities are planned to open in February 1999. In addition the IFC will receive an annual operating grant of $2.5 million.

Advantages of the IFC model for training delivery

The IFC model has been designed to:

- focus on the needs of the Australian textile industry. Given that the IFC is governed by industry leaders the centre will be continually exposed to the realities of the Australian textile industry
- provide a national centre of excellence in textiles training. Industry, training providers and academia from all over Australia can use the facilities. Organisational and geographic barriers have been removed in the IFC model
- maximise the utilisation of the facilities. Facilities are not owned by any one training provider, but are available on a scheduled basis to any public or private training provider, school or university
- provide flexible access and staffing arrangements which will allow for the plant and equipment to operate on demand, seven days a week and/or multiple shifts. Staff are technical experts not teachers or trainers
- provide a legal structure which ensures that any profits earned must be applied solely to the purposes of the company; any profits continue to benefit the textile industry
- ensure the relevance of plant and equipment to the Australian textiles industry. The centre provides the ability to respond to emerging industry developments in relation to technology and training needs
- build on successful international models of training and product development facilities
- complement the role and facilities currently provided by the Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- directly involve industry in the ongoing management and development of the IFC to ensure the continued relevance of facilities and services

The Australian textile industry must develop competitive workforce skills, undertake product innovation and value-add to raw materials. The IFC has the opportunity to directly support these developments through facilitating high quality textile training and product development.

The NUEITAB

Paul O'Brien

The National Utilities and Electrotechnology Industry Training Advisory Body (NUEITAB) was formed in 1995, following a review of national ITABs by the Australian National Training Authority (ANTA) with the intention of reducing the number of ITABs.

This reduction in the proposed number of ITABs naturally implied amalgamations among existing ITABs, and in the case of the NUEITAB, the National Electrical and Electronic Industry Training Council (NEEITC) and the Water Industry Education and Training Association of Australia (WIETAA) came together to form the nucleus of the NUEITAB.

The Board of the NUEITAB reflects the sectoral nature of industries covered by the NUEITAB. There are currently four sectors of the NUEITAB, three of which may be broadly categorised under the heading 'Utilities':

- electricity supply: includes electricity generation and electricity transmission/distribution
- water resources: includes water and wastewater
- gas supply: includes natural gas transmission, natural gas distribution and liquid petroleum gas (LPG)

The fourth sector, electrotechnology is not considered a utility. The electrotechnology sector includes electricians (often electrical contractors) and electronics workers. The lift industry is closely aligned to the electrotechnology sector of the NUEITAB, working through Lift-Skills Australia, an industry-funded organisation which has a strategic alliance with the NUEITAB.

Employment in the utilities sectors

The utilities sectors have been subject to substantial restructuring over the last decade. Independent research by John Ray and Associates (1997) commissioned by the NUEITAB and based on Australian Bureau of Statistics (ABS) data indicates that the number employed in the utilities sectors fell from 126 400 in 1987 to 77 500 in 1996. In that decrease, about two-thirds were males with lower levels of skill and included many from non-English-speaking backgrounds.

For labourers and related workers the fall was 13 800 jobs, for tradespersons 14 900 jobs and for plant and machine operators 9600. On the other hand there was a small rise in the number of managers and administrators (up 1100).

It should not be assumed however, that these figures tell the whole story. In many instances functions once carried out by utilities companies are now undertaken by contractors and it may well be the case that the current data collection methods do not count workers employed by those contractors under the heading of electricity, gas and water.

In relation to those workers still employed in the utilities sectors, the industry is more 'middle-aged' than the Australian average and there is a similar age profile across the three major divisions of electricity, gas and water. For example, in the electricity sector, 50 per cent of the workers are aged between 30 and 44 while the Australian average for those in employment is 39 per cent for that age bracket. Similarly, in the gas sector, 40 per cent of the workers are aged over 45 while the Australian average is 29 per cent.

Employment in electrical/electronics occupations

John Ray and Associates (1997) found that over the nine-year period from 1978 to 1996, employment in electrical/electronics trades occupations grew at an average annual rate of 1.4 per cent. This rate of growth was above the average for all the trades in Australia over the period (0.7 per cent) but below the national average for all employment (1.8 per cent).

Within the electrical/electronics trades groups, two occupations experienced high growth in employment:

- office equipment and computer services (12.9% average annual growth rate)
- electrical mechanics (2.3% average annual growth rate)

At the same time, declines were experienced by:

- electrical fitters (-5.8%)
- electrical powerline tradespersons (-3.3%)

There are more persons employed in the electrical/electronic trades than in the three utilities sectors together. In 1996 it was estimated that there were 187 900 electrical/electronic tradespersons, with an additional 58 000 electrical/electronic engineers or engineering associates.

Research conducted by Bob Marshman and Associates for ANTA in 1996[1] on the electrical trades (along with engineering and building and construction) found that while there had been a significant decline over the period 1992 to 1996 in the number

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[1] Bob Marshman & Associates 1996, *The employment of apprentices: The barriers*, ANTA, Brisbane.

of apprentices in training in the electrical trades, the decline was *not* due to the need for further reform of the vocational education and training (VET) system but to '. . . a complex array of microeconomic, social, educational and other conditions which were not present 5–10 years ago'.

The prime reasons identified for the decline by Marshman were the image and status of the trades and the impact of restructuring, outsourcing and changes in contractual cycles.

In regard to status of the trades, it may be that the increase in the average age of those entering apprenticeships from the 15–16 year age group to those aged 18–19 has resulted in a group with increased expectations regarding salaries and career expectations.

In regard to restructuring and outsourcing, Marshman makes the points that:

- The outsourcing of a wide range of functions has impacted on the ability of many firms to employ apprentices, particularly in committing to a four-year apprenticeship.
- The reduction in the length of contract cycles has led to a transfer of apprentice training effort from the firm to group training companies.
- There has been a marked growth in the number of labour-hire companies many of which do not undertake a training effort themselves.

While the above may indicate pressure to reduce the time taken to undertake an apprenticeship, it is the very firm view of the NUEITAB that the current length of an Electrical Apprenticeship is entirely appropriate and necessary, given the need to develop the requisite underpinning knowledge needed in an electrical tradesperson and keeping in mind the clear public safety issues involved in working with electricity.

Training issues for the utilities sectors

During its first year of operation, the NUEITAB commissioned a research project that examined those issues common to the sector with a potential impact on training across the utilities sectors. The report of that project, undertaken by Focus Learning Systems, was published by the NUEITAB in September 1996 under the title *Commonalities Project.*[2] Two years after its publication its findings remain very pertinent.

Contracting-out of services

The commonalities report flagged the importance of the move toward contracting-out across the utilities sectors. The report noted that:

> *Across gas, electricity and water, an overwhelming majority of organisations are contracting out services they previously undertook internally. In the case of training, there seems to be two scenarios developing; one where the organisation is downsizing its training services and contracting for them as needed, the other where the organisation is retaining its training section but commercialising it so that training also sells its services to other organisations.*

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[2] Robin Bishop & Associates and Focus Learning Systems 1996, *Utilities ITAB: Commonalities project*, ANTA, Sydney.

Not only does the trend toward contracting-out have an effect on the substantial in-house training provision which large utilities companies undertook in the past, but it also begs the important questions of how training is to be provided to the contracting companies in the future. For example, will the contractors accept that the transfer of functions/labour to them implies a transfer of training responsibility?

In the context of the utilities companies it is important to recognise the need for training in asset and contract management, as this has become in many instances the core functionality.

Environmental issues

Over the past 20 years the Australian community has become much more aware of the importance of environmental protection in regard to the health and wellbeing of the population and the sustainability of our standards of living. Further, there is now increased vigilance by regulatory bodies over the environmental performance of utilities companies.

In regard to training, there is clearly a need within the utilities sectors for appropriate staff training in environmental management. A failure to train staff in these environmental management techniques could impact on a company's ability to mount a due diligence defence. Lack of training could indicate that the organisation had not taken appropriate steps to prevent a breach from occurring.

In relation to the water industry, in 1996 the National Water Industry Steering Group incorporated environmental management in the National Water Industry Competency Standards and subsequently in the national training package.

Current/future training issues for the electrotechnology sector

Changes in technology are affecting the work undertaken in the electrotechnology sector. Currently there is strong growth in the business equipment technology area, an area of technological convergence where, because of the growth of digital technology, such equipment as computers, photocopiers, mobile phones, fax machines will converge with a resultant need for training. Similarly, there is a demand for the retraining of electrical contractors to enable them to work in the communications sector in such fields as data cabling.

Electrical contractors are often small businesses and as such are subject to the well-documented difficulties small business has in being part of the 'training culture'. A recent survey by the National Electrical Contractors Association (NECA) found that of the 51 per cent of electrical contractors who could be classified as small business operators:

- 20 per cent employ apprentices
- 6 per cent use group training apprentices
- 16 per cent employ clerical/admin staff

In the uncertain economic climate of the 1990s there has been a general trend for small business to regard the training of apprentices over a three-to-four-year period as uneconomic, a view not held by the NUEITAB.

Development of the national training packages

The development of the national training packages has given industry a greater input to the vocational education and training (VET) system than before. During the early 1990s the move toward competency-based training (CBT) saw industry sectors involved in the development of national competency standards. When the NUEITAB was established in September 1995, development of national competency standards across the utilities and electrotechnology sectors was taking place.

The advent of the training package concept allowed the NUEITAB to draw together the separate developments across the utilities sectors to produce the Utilities Training Package which encompasses the three sectors of electricity supply, water and gas. Most importantly for the industries themselves, the training package concept allowed the industry representatives to decide how units of competency should be packaged together to form qualifications, and how those qualifications should be titled.

Currently a project in the electrotechnology sector is under way to produce the endorsed components of the electrotechnology training package, based on the existing national competency standards.

Of some concern to the NUEITAB and the industry sectors however, is the endorsement and monitoring of the registered training organisations (RTOs) under the National Training Framework.

While the NUEITAB attempted to advocate a role for national and State/Territory ITABs in monitoring the delivery of national training packages by RTOs, this has not been accepted by the State training authorities. Indeed, there seems not yet to be a mechanism for national or State/Territory ITABs to even be informed as RTOs gain acceptance.

The maintenance of the national training packages will be a major role for national ITABs in the years to come. Feedback mechanisms should be set up so that training packages fully reflect the industry sectors' requirements. The RTOs are crucial components in these feedback loops and will certainly form de facto relationships with national ITABs, even if those relationships are not made explicit by the Australian National Training Authority (ANTA)/State training authorities.

Conclusions/issues for research

The importance of the utilities and electrotechnology sectors to the economy, health and wellbeing of the nation becomes starkly evident when the services they provide become suddenly absent. The experiences of Auckland with electricity transmission/distribution, Brisbane with electricity generation, Sydney with water supply and Melbourne with gas supply over the last year underline this point.

The training dimension involved in these incidents is as yet unknown, but what is clear is that the Australian industries which are considered critical in regard to maintaining our standards of living cannot function without the underpinning support of the utilities and electrotechnology industries. Those industries are found in the largest of our metropolitan areas, in the most remote communities and in all towns and villages in between.

We need to know more about the companies which have taken up many of the functions once performed by the utilities companies. What are their views on training the next generation of utilities and electrotechnology workers? Do they recognise the emerging issue of skills replacement which will be required given the identified ageing of the workforce referred to earlier?

What is the actual size of the workforce engaged in utilities and electrotechnology given the growth of outsourcing? Is that workforce declining in numbers or has the number again begun to grow?

How can the status of the trades be raised in the minds of young people about to choose a career? I am sure that this last question on its own is one which we in the VET business will continue to debate.

Gas Industry Skills Centre

Joseph Calabrese

Introduction

THE GAS INDUSTRY Skills Centre is one of the newest of skills centres to be established. Although not officially opened until late October 1998, the Gas Industry Skills Centre has developed its profile as the training provider for the gas industry, both nationally and internationally. The Gas Industry Skills Centre is the result of the Australian Gas Light Company's (AGL) need to relocate its training facility at a time when open access and deregulation of the energy business required companies to refocus on core activities.

For over 160 years the Australian gas industry has been self-sufficient in meeting most specialist training needs. The AGL, Australia's oldest energy company began operation in 1837 and training in the industry is almost as old. Expertise was initially imported from England and the locals were trained to carry out specific functions and tasks. Apprenticeships and traineeships were commonplace, trainees even being required to work for free or in some cases pay the master for learning the trade. Large organisations just like AGL were the cornerstone of education in many countries. There was very little publicly funded vocational training available.

In Australia until fairly recently there have been only two major players in the gas distribution business, AGL (NSW) and Gas and Fuel (Victoria), a state-owned utility. These two players have been seen as the training providers, and have set the standards for gas industry training. Until recently training has been restricted or non-existent to others in the industry.

Effects of deregulation

As a result of deregulation, third-party access and a need to be more efficient, the gas companies have had to change the way they operate.

The government-owned utilities have been corporatised or sold off. The smaller gas companies have been purchased by larger energy companies and the business units have refocussed on their core businesses.

All energy companies have moved towards a strong contracted workforce. These contracting companies have a high turnover of staff that are lost to other contractors or are lost to the gas industry completely. These contracting companies have short-term views on training. They have in the past been able to recruit from the pool of gas company-trained people, a pool which is now being depleted rapidly.

A mobile workforce moving between utilities is emerging and is characterised by a narrowing set of skills, developed for very specific job functions. The larger gas companies however have been developing multi-skilled gas supply technicians who are able to carry out a wide range of gas industry activities.

With the shift to contractors there is little time for on-the-job skill transfer. Typically these employers want minimal training and instant productivity from their employees. There is now reduced or nil apprentice and graduate intake in the industry, with any long-term vision for development of employees taking a low priority. AGL for example, has stopped training apprentices. This is a reduction from 40 per year at its peak in the 1970s to nil in the last three years.

Adding to these problems, over the last five to ten years, no specialist gas industry training has been available through any public institution.

Gas Industry Skills Centre

To ensure the gas industry will continue to receive the standard of training it has come to expect despite the recent deregulation of the energy market, AGL is establishing the Gas Industry Skills Centre through a joint arrangement with Southern Sydney Institute of TAFE (SSI TAFE). SSI TAFE NSW has provided access to three previously under-utilised buildings located on 0.25 hectares at Chullora, Sydney.

AGL is providing $900 000 in equipment and expertise in infrastructure to establish this centre. Initially managed by AGL as the major New South Wales gas company, this centre will eventually operate independently and will be available to the whole of the gas industry for the provision of training and development services both nationally and internationally.

Funding of $250 000 for the project was also received from the Australian National Training Authority (ANTA) through the New South Wales Department of Education and Training's New South Wales Skills Centre program.

The mission statement of the skills centre is to ensure that the gas industry has access to a competitive source of timely, cost-effective, quality training for its competency assessment requirements. The Gas Industry Skills Centre has been established to provide training and assessment services as an independent provider of training to the whole gas industry.

Alliances

Unlike many skills centres established in the past, the Gas industry Skills Centre will grow through alliances formed with:

- third-party training providers
- TAFE NSW
- specialist consultants
- other energy companies
- other skills centres

Brokerage of services provided will be the key to the Gas Industry Skills Centre's success. This includes the sourcing of both closed and public courses to maximise training opportunities and delivery.

National competencies

An Australian Gas Association (AGA) training task force has been established since March 1995. The task force consists of representatives from each State and Territory and was brought together to look at developing competencies for the gas industry through the National Utilities and Electrotechnology Industry Training Advisory Body (NUEITAB). As a result 32 competencies have been developed covering liquid petroleum gas (LPG) and natural gas.

The New South Wales NUEITAB has established the vocational education and training (VET) plan for 1999–2001. This VET plan has identified skills gaps and training needs in the next three years. Of major concern to all industry members is the downturn in entry-level training. Traineeships are currently being developed addressing Australian Qualifications Framework (AQF) levels 2 and 3. These traineeships will be administered through the Gas Industry Skills Centre with curriculum delivered both on and off the job.

The future

In order to meet industry needs beyond AGL's requirements, various means of gathering information and expertise are being established. A close relationship with both the State and national ITABs will provide up-to-date information on industry needs. A gas industry training group is being established. Several meetings have been held with up to 35 industry representatives. It is probable that, in the future, the Institution of Gas Engineers will meet to consider industry requirements while the Gas Industry Skills Centre will provide needs analyses and survey skills to assist in the gathering of training needs. This will for the first time, give contractors and smaller gas companies a voice in the training arena.

The national competencies and assessment requirements hold the most likely short-term growth opportunities for the Gas Industry Skills Centre. As competencies become established and accepted by the industry, training providers and assessors will need to recognise skills and competencies of existing people and of new employees.

Overview of the building and construction industry

Raymond Hutt

THE BUILDING AND construction industry plays a significant role in Australia's economy. It accounts for about seven per cent of the gross domestic product (GDP) in Australia. The building and construction industry is closely linked to the economic cycles of the country. Following are the key factors which affect the level of activity of this industry:

- the short-term business cycles and particularly the level of investment or capital expenditure
- the financial strength of the government sector and government business enterprises which are the major spenders on infrastructure development
- demographic shifts, particularly the level of immigration, but also the age profile, births, marriages and divorces
- interest rates, which affect both the demand for housing and the attractiveness of property investment in relation to the share-market bonds and other alternatives

These factors affect different sectors of the industry differently. This means that some sectors of the industry can be in a recession while some other sectors are growing.

The building and construction industry generally accounts for more than 50 per cent of the gross fixed capital expenditure in Australia. The importance of the industry is not only economically significant in its own right, but it also has a major impact on other sectors of the economy. As a service industry, which provides inputs to other industries, it has significant flow-on effects on many industry sectors.

The occupational profile of the workforce is significantly different from that of the Australian workforce in general. More than 50 per cent of the members of the construction workforce work at 'trade' level with relatively few people employed at professional and para-professional levels. This makes this industry highly dependent on vocational education and training to meet its skills requirements.

In the past, publicly funded training to this industry was provided through a number of apprenticeship programs covering the established 'trades' in the industry such as bricklaying, carpentry and joinery, plumbing etc. The main shortcomings of this system are:

- no publicly funded training in traditional 'non-trade' areas where a large number of workers are employed
- most of the publicly funded training was aimed at entry-level training at the expense of upgrading the skills of the members of the existing workforce

The key training problems facing the industry

The most important training problem facing the industry at the moment is the trend of declining apprenticeship enrolments. The other key training issue is the provision of publicly funded training to all sectors of the industry and to new entrants to the industry as well as to the existing members of the workforce.

The structure of the industry

There have been significant changes in the structure of the industry in recent years due, in part, to outsourcing of labour by large and medium enterprises in both public and private sectors. This has resulted in increased reliance on sub-contracting and specialisation. These changes have major implications for the maintenance and growth of the skills base of the industry.

The growth of sub-contracting has been associated with shorter contract cycles and specialisation, and has led to an inevitable inability to train. Labour hire has also made inroads into the building and construction industry, albeit to a lesser extent than in other industries such as engineering. While labour hire provides a mechanism for companies to deal with cyclical and seasonal fluctuations and surges in demand and, in some cases, the outsourcing of entire workforces, the labour-hire companies offer little or no training.

Apprenticeships

Employment in traditional apprenticeships has been in a long-term decline and this has serious implications for the long-term skills base of the industry. The decline in traditional apprenticeship numbers may have been more serious had it not been for the growth in group training.

In addition, the average age of entering an apprenticeship has risen from 15–16 years to 18–19 years without effective vocational preparation in Years 11 and 12 of secondary schooling. This increase in average age means that apprenticeships are in competition with a range of other adult vocations.

Increased reliance on outsourcing by public sector enterprises has also resulted in a lesser number of apprentices employed by those enterprises. In the past, governments have been an important source of traditional trades apprentices for industry as a whole. A recent study reveals that the New South Wales Government accounted for ten per cent of the total intake of building and construction apprentices in 1986. This figure had been reduced to one per cent of the total intake of building and construction apprentices by 1996. This trend is equally applicable to other States and Territories, although the degree of change may vary from State to State.

Although the governments (Commonwealth, State and Territory) no longer employ apprentices in significant numbers, they, together with local government through their procurement requirements, still account for more than half of the output of the industry. This provides an opportunity for the governments to exert influence on overall intake of apprentices/trainees. State and Territory governments have already agreed to a national code of practice for the construction industry. The governments may use this code as an instrument of industry policy, including training policy.

If governments can contribute to increase the skills base of the industry and at the same time increase employment opportunities for young people through their procurement, using public funds, then they should do so.

Construction Training Australia (CTA) and the State/Territory industry training advisory body (ITAB) network will be working together to persuade the Commonwealth Government and State and Territory governments to legislate to have apprentices/trainees employed in all governments' procurement contracts, commensurate with the value of the contract amount.

National training packages

The building and construction industry has taken up the development of training packages with vigour, and currently is working through CTA to develop training packages to cover all industry sectors from Australian Qualifications Framework (AQF) level 1 to 6. While acknowledging a link between industrial relations and training, the training packages have left industrial relations implications aside when qualifications were formulated. The qualifications are only aligned against the Australian Qualifications Framework.

CTA will continue the development of national training packages for all sectors of the building and construction industry up to AQF level 6.

Non-trade occupations

Historically, formal training in the building and construction industry has largely been restricted to professionals and trade apprentices. As a consequence, more than 60 per cent of those who work in the industry have obtained their skills informally on the job and have no accredited skills. People who work in non-trade occupations are often labelled as unskilled or semi-skilled, terms which are anachronistic in an industry which requires an increasingly high level of skill to cope with changes in technology, specialisation, pressures of competitiveness and the production of high quality products.

New institutional arrangements have now more or less erased the difference between trade and non-trade occupations. This is mainly due to two new arrangements. Firstly, with the introduction of national training packages, all States and Territories (with the exception of New South Wales) have agreed to remove the notion of declaring vocations, which generally covered the traditional trade areas. Secondly, two training packages developed to date offer qualifications in traditional non-trade areas such as concreting, scaffolding, materials handling etc. These two training packages offer publicly funded training for all occupational categories in the building and construction industry without differentiating them as trade or non-trade.

Group training

In an environment characterised by increased specialisation and sub-contraction, group training plays a significant and increasingly important role. There has been a major transfer of apprentice employment to group training companies in recent years to the point where they now employ more than 30 per cent of all apprentices in training in the building and construction industry.

CTA will work in close collaboration with Group Training Australia to make group training companies a major employer of apprentices/trainees in this industry.

School-to-work transition

Schools throughout Australia deliver pre-employment courses, which can result in credits towards an apprenticeship. Governments are also proposing the interaction of school-based apprenticeships and traineeships. Problems here include poor industry links, questionable relevance and inadequate resourcing of schools to satisfactorily deliver vocational education and training, and a mismatch with employment opportunities.

Professional development challenges include:

- teachers with little experience of the 'world of work'
- the entry of trade-qualified entrants into the teaching profession and the maintenance of their skills
- the professional development of degree-trained teachers without trade qualifications

Issues include:

- the need to develop new partnership models for the delivery of vocational education and training (and associated staff development) in schools to ensure training is relevant and employment-focussed
- the development of partnerships with employers and training providers

For the first time CTA has provided a valuable input to the VET in Schools programs by developing especially designated qualifications to be delivered in schools.

Another important aspect is the promotion of careers in the building and construction industry in schools. There is a general perception that the building and construction industry is grimy with harsh working conditions and a poor health and safety record.

CTA will undertake a public promotion campaign, as a part of national training package marketing, to enhance the image of the industry to make it attractive to young people choosing a career in building and construction as their first choice.

Industry training funds

Industry training funds, whereby funds are collected through a levy system are currently in operation in Tasmania, Western Australia and South Australia. In spite of ill-informed and unsubstantiated claims regarding the effectiveness of these funds, they have provided a yeoman service to industry where they exist.

The building and construction industry is a disparate and project-based industry dominated by small enterprises. Training expenditure surveys have already shown that this industry spends considerably less on training per employer than other industries. These surveys have also shown that smaller firms spend less on training per employee than large ones in the same industry. Industry training funds are a very effective way of providing assistance to enterprises, especially the small ones, to provide training for their employees. The majority of the stakeholders in this industry have always viewed establishment of industry training funds at State and Territory level as an important strategy to raise the skills base of the industry. It is CTA national policy to achieve establishment of industry training funds in all States and Territories.

CTA and the State/Territory ITABs will continue to negotiate with, and promote to State and Territory governments, where industry training funds do not currently exist, the establishment of such funds to facilitate training to increase the skills base of the industry.

Deregulation of training market

The deregulation of the training market by the Commonwealth Government and State and Territory governments has paved the way for increased competition between public-sector providers (mainly technical and further education [TAFE] institutes) and private-sector providers. User-choice arrangements, introduced in January 1998, have added further impetus to the deregulation of the training market. User choice has provided significantly greater market power to individual clients and has created an environment for increased responsiveness on the supply side of the training market.

Deregulation of the training market has affected different industries in different ways. Historically, TAFE institutions have been the main providers of training to this industry. In view of the capital intensity of training provided for this industry, it is hard to imagine private providers making significant inroads into the building and construction industry training market, with the exception of few areas like painting and decorating and supervisory and business management training.

However, there is some evidence to show that some new registered training organisations (RTOs) are trying to enter the 'soft end' of the market (for example, delivery of Certificates I and II). Delivery of training at Certificate I and II levels is very much less capital-intensive than the 'hard end' of the market, typically associated with 'trade training' leading to a Certificate III.

The industry through CTA and the network of State/Territory ITABs will work together with the registered training organisations to ensure training and assessment services are delivered by the RTOs as required by the industry.

Research required by the industry

Apprenticeship training by its nature is employment-based. Therefore, any improvements to the apprenticeship system through group training, or through the introduction of training packages will not change the employment-based nature of the system.

The contention now is whether the industry with its increasing reliance on sub-contracting has the capacity to continue to support employment-based training arrangements to the extent that it has in the past. Ever-increasing reliance on outsourcing through sub-contracting creates an environment hardly conducive for training based on long-term training contracts.

It is therefore, appropriate that the industry looks at available alternatives. The only alternative available to employment-based training is to break the nexus between employment and training. This can be implemented through a training system based on a significant period of up-front, off-the-job training (may be up to a year) followed by on-the-job training (once again, may be up to a year). This sandwich type of arrangement may be continued until the student/trainee reaches his or her desired level of qualification or competency profile.

CTA in future will need to undertake a study on all forms of entry-level training arrangements to determine the advantages and disadvantages of available alternatives. Such a study will address the following issues:

- the future of the traditional apprenticeship system in the light of the changing structure of the industry
- the need to maintain and develop the skills base
- the growing tension between an award-based apprenticeship system and sub-contract system of labour driven by market forces
- the relevance and potential of New Apprenticeships with multiple entry and exit points and the potential for non-award-based employment
- the need to understand the reasons for the growing number of apprentice cancellations
- the need for policies to deal with apprentices who are out of trade through no fault of their own
- alternative methods of supplementing the employment of apprentices in an industry characterised by sub-contracting and peaks and troughs

CTA will need to seek to initiate action, to undertake research study on alternative approaches for entry-level training.

Flexible training delivery in the hospitality training industry

Gavin Dadswell

Introduction

In response to recent government initiatives aimed at increasing New Apprenticeships and developing and implementing national training packages, HTC Vocational Institute has focussed on flexible training initiatives and flexible delivery to reflect increasing demand for traineeships. We have implemented these initiatives through the national training packages—allowing us to cater to the varied needs of industry.

Background to HTC Vocational Institute

HTC Vocational Institute is one of Australia's largest and fastest growing private training companies with co-ordination centres in all mainland States and Territories.

Established in 1991, the organisation services capital cities and regional areas throughout Australia, and currently provides nationally accredited training and employment-related services to over 8000 students each year.

There has been a rapid expansion, not only in the size of the company, but also in its divisions and services. With over 160 staff throughout Australia, we have become total service providers to industry, offering services such as private case management, job club centres, personnel services, corporate training, mixed-mode training for traineeships, and vocational training for programs for State and federal governments.

These government programs have been our major area of responsibility and address skill shortages through the training and personal development of long-term unemployed and specifically disadvantaged in the local community and in regions. By developing and delivering specialist support, we have provided equity and access for these groups. The following clients have benefitted from these initiatives: Aboriginal and Torres Strait Islanders, those from non-English-speaking backgrounds, ex-offenders, those with disabilities, mature-aged, long-term unemployed, youth, and women.

The company was also chosen as the private institution to pilot private provision of such programs as the Australian vocational certificates, traineeships, apprenticeships, pre-vocational training, and correctional service training.

Programs are planned and executed in conjunction with both industry and government to facilitate the highest achievable outcomes in terms of student competencies and employment opportunities.

HTC Vocational Institute has developed a training delivery structure known as mixed-mode delivery. Mixed-mode training is a new initiative using new training methodologies which include self-paced material, workshops, drop-in resource and learning centres as well as traditional face-to-face delivery.

Background to the need for flexible traineeship delivery strategies

- A flexible approach to training delivery was needed to meet the needs of individuals and of industry.
- National training packages are a platform by which to deliver these benefits, as they offer national consistency, portability, easy acceptance by industry and a national framework for traineeships.
- HTC Vocational Institute's approach to flexible delivery includes the services of the Employment Solutions Team (EST) and focusses on tailoring training to the needs of the establishment and the individual, not prescribing a standard training program which may be irrelevant to specific needs.

Innovative training arrangements

Flexible training delivery strategies are designed to meet the needs of specific establishments through the establishment of:

- workshops—on-site practical workshops for a small number of individuals, using the specific establishment's procedures and equipment. This ensures that the practical training is relevant to the needs of that organisation
- self-paced material—provided to trainees with instructions to complete the manuals in accordance with their learning plan
- drop-in learning centres—established in all regional co-ordination centres, providing trainees with access to video and text resources, and their training consultant
- helpline—available in all regional centres, providing trainees with a freecall line to access advice and assistance from a training consultant
- face-to-face delivery—in a traditional classroom setting, scheduled to meet the needs of both the individual and the workplace, at a mutually convenient time

HTC is committed to maintaining a quality focus by utilising national training packages to offer a customised qualification package to reflect the given work patterns of individual employees utilising a consistent and defined national benchmark of competency.

The Employment Solutions Team assesses training needs of an organisation, conducts skills audit of existing staff, and markets traineeships to meet these needs (in conjuction with existing resources available on the premises) in the most appropriate delivery strategy for the individual and the employer.

This is then followed by the development of a training schedule based on the establishment needs.

A mapping tool is developed which compares units of competency from the national training package against old hospitality modules to assist conversion of old traineeships into training package traineeships. Mapping exercises are also used to assist staff to interpret and understand the training packages.

HTC Vocational Institute is committed to internal staff training; for example, in-house workplace training category 2, computer-based training programs.

Benefits to key players

Formulating the structure of the most appropriate training program is a consultative process that includes all relevant individuals; for example, the employer, the employee, and HTC to ensure that all parties will benefit from the flexible training:

- Providers
  - training focus on assessment and level of competency, not the delivery strategy
  - opportunity for introduction of school-based traineeships
  - more industry sectors offered flexible training delivery
- Industry
  - flexibility of training to meet the needs of industry traineeship is customised for each establishment to determine appropriate qualification for employee's job and delivery strategies to suit the requirements of venue
  - employees of the industry better trained and qualified to meet the needs of the establishment, now and in the future
  - availability of level 3 traineeships in some States
- Participants
  - opportunity for formalising training and recognising industry experience (conversion for existing employees into traineeships)
  - qualifications nationally recognised
  - mutually recognised qualifications across providers
  - appropriate qualification for their job level and skills required; undertake specific traineeship in relevant field
- Community
  - implementation of the hospitality and tourism training packages focussing on training a skilled workforce for the 2000 Olympics and the future
  - increased community access to training because of wider scope of qualifications to develop training programs

How the training/program has been received

Industry appreciates the relevance of flexible training delivery as it takes into consideration in-house training and resources on site at each establishment.

There has been positive reception to the tailoring of qualifications to establishment needs (that is, resources, delivery strategy and company culture). They are no longer presented with a standard listing of units, an inappropriate delivery strategy and unworkable timetable. Each establishment and employee is actively involved in planning the most convenient and appropriate training program and delivery strategy for their needs.

Lessons to be learned and experiences to be shared

By allowing for flexibility in tailoring training to meet industry needs (in terms of training content and delivery strategy) with the focus on quality outcomes, the national training packages have become a platform to meet the changing needs of industry.

With training packages leading into New Apprenticeships, the resultant nationally recognised qualification allows for unity between providers through mutual recognition of qualifications across industry.

State training authorities should be encouraged to drive the need for implementing training packages as there is inconsistency Australia-wide with implementation dates.

HTC has understood the need to constantly update and increase delivery strategy options in response to the changing needs of industry, and individual trainees.

Needs versus training in the communications industry

Rob Gage

DEBATE OVER JUST what we will do to accommodate the arrival of the 'information age' is now almost superfluous. The information age is here with us now. Yes, we will see ever-increasing amounts of information become available but we must accept that the quantity of information currently available is more than in the history of humankind.

The average person in developed countries can gain access to the huge global storehouse of information with relative ease. Telecommunications and information technology systems provide the conduits and the tools to receive and process vast amounts of information. While we may marvel at the technologies that connect us to a global network, I expect that in ten years time we will look back at the technologies available in 1998 and wonder how we ever managed with such primitive devices. Such is the pace of technological change.

In earlier times, the right of access to information was reserved for the privileged. Today it would be fair to say that access has been opened up to the masses, at least in developed countries.

In terms of placing value on information by applying market place supply and demand factors, does it mean that the huge increase in the supply of information has reduced its value? It is more likely that the seeker of information is the person that actually places value on the information obtained. So, if the information supply is now abundant and the value is determined by the receiver, what statements can we make on the quality of information? The only reliable statement that could be made is that the quality is variable and that ultimately the tools of technology may provide some assistance in influencing the quality and supply of information.

If learning can be thought of as the acquisition of knowledge, then learning should be infinitely easier in this information age. With an abundant supply of information available now, maybe we can dispense with teachers. The newly empowered learner can simply seek out the information they need and acquire the knowledge for themselves. This line of thinking has gained considerable support globally with the people responsible for funding education—a virtual campus, virtual college, virtual classroom and a virtual budget! We have, however, studied how people learn for centuries and the agreed position is that there are many factors involved with the learning process. These factors include motivation, relationships, cognitive skills etc.

For a learner to embark on the acquisition of knowledge by tapping into the global information network, it must be assumed that they have the ability to self-direct their learning, and that they have the skills to use the technologies to seek out the information and interact with others who use the same medium.

Research carried out earlier this year revealed that over 70 per cent of vocational education and training (VET) students were average or below average in their abilities to use internet technologies for self-directed learning. These findings are not simply confined to the VET sector: the tertiary sector returned similar results. Details on this research can be found at <http://www.worklearning.corskill.com.au/worklearning>.

Learning is mainly about the transfer of knowledge from one individual to another. Rarely do we experience 'eureka' insights. Learning will always be based on logic and order whether that order is provided by the teachers, the facilitator, or the instructional designer.

The challenge that faces the training provider of the future is how to fully utilise all available resources. Some of these resources will be teachers, facilitators or trainers. The training provider of the future will need to be able to teach people how to learn, how to manage time and manage their own learning experience, how to interact with others and how to work in teams—real, virtual or virtually real.

Technology on its own is not the solution to all learning issues; it is however, part of the solution.

The relevance of information technology (IT) education to the business needs of New South Wales industry has a direct bearing on the ultimate productivity of those businesses. The importance of education and training, however, is often understated, and the correlation between educational relevance and business productivity is sometimes acknowledged but rarely acted upon.

Education and training is a process, not an outcome. The outcome of effective education and training is that people have the necessary skills and knowledge to participate in society. When we get it wrong, we either have dysfunctional people as an outcome, or the supply of skilled people is not in balance with the current needs of society.

It is clear that the current outcomes of our education and training systems in Australia and globally are dramatically out of balance with the needs of industry. We are now faced with extensive skill shortages in the IT industry. These shortages in supply have a direct impact on the productivity of Australian IT companies and the ability of the companies to grow and compete. While we might refer to this situation as a 'skills shortage', it is rapidly developing into a 'skills crisis'.

The strategies that can be implemented to address the skills crisis in the information technology industries are being implemented on a short- and long-term basis. In addressing the short-term needs, additional graduates from the VET and tertiary sectors will have some impact; however, funding for additional places is not guaranteed and the specific nature of the training programs needs to be in direct alignment with the areas where the skill shortages are most critical.

Another strategy is to have maximum efficiency for the delivery and outcomes of IT training. By identifying the outcomes of the vendor certification against the public IT programs we can align vendor and national qualifications. This can only be achieved while we continue to use competency standards as the currency for training and assessment. Schools are now aligning their final year/s of computer curriculum to the IT competency standards.

Research has been undertaken earlier this year to determine the destination of IT graduates and the degree of satisfaction expressed by the graduates and the employers in the technical and further education systems nationally. This research was carried out by the National Centre for Vocational Education Research (NCVER) on behalf of InfoComP training. The findings of the NCVER research can be downloaded from the InfoComP web site: <http://www.infocomp.net.au>.

Skills formation for the financial services industry: Agent of change or zookeeper to the dinosaurs

Loretta Winstanley

Introduction

Currently no other industry in Australia is facing such an exponential rate of change as the financial services industry. Even the name of this session 'finance and insurance' no longer accurately reflects the shape and direction of the industry. Chief executives do not talk of their enterprise as a bank, an insurer or a funds manager, but as a financial service. The functions of the traditional sectors of the industry are blurring and the decisions made today by human resources managers and training systems must be relevant to a future that, within the next five years has virtually no similarity to today.

The Australian Government recognised the need to force the financial services system to become more competitive, and established the so-called Wallis Financial Services Inquiry. All but one of the recommendations was accepted by the government and the massive forces of change contained under the umbrella of the Corporate Law Economic Reform Program (CLERP) are now part of the industry. It is not only the complexities created by reform, but the number of reforms faced by the industry which are causing widespread anxiety.

The regulatory environment prior to CLERP had been built on product lines. As the blurring of functions increased, so did the compliance complexities, duplication and crossovers. The creation of a single entity regulator has been predicated on regulation by function—and this will affect the industry dramatically.

The industry is also profoundly affected by technological developments. The traditional distribution channels for products are under threat of extinction. The battle for survival in the industry is going to be won or lost in the distribution channels. The traditional bank branches are closing; the insurance collection agent has gone. What we are seeing now is the 'deconstruction' of the traditional profile of the industry.

Enterprises have reacted to such change in various ways:

- Grow bigger: amalgamate/takeover to widen the client base and effect economies of scale with backroom/administrative functions. At the present moment, many of the larger enterprises are on the acquisition trail, further mergers of the bigger enterprises are restricted because of the 'four pillars' policy.
- Outsource functions; for example, the Mortgage Company, a wholly owned subsidiary of WESTPAC. After establishment the enterprise then seeks further contracts.
- Create new distribution channels utilising technological change; for example, internet-generated policies etc.
- Develop boutique/niche markets.

The distribution channels will utilise technological change—there are lessons to be learnt from the retail industry which has worked hard to develop sophisticated customer loyalty and reward programs. The utilisation of these programs and technology, with strategic alliances between financial establishments, makes a potent combination at the point of sale with the following examples of outcomes/options:

- purchase of groceries paid by company credit card
- renewal of general insurance premiums
- payment of household accounts which are linked to the service provider

The strategic alliances between retailer and financial service institutions are already in place in the United Kingdom and are imminent in Australia. Financial institutions relying on traditional customer loyalties will not survive if the distribution channels do not alter.

The challenge to the human resources people and the training system is how to react to such change. Vertical silos of skills provision is not the way forward. Maintaining such practices places us in the role of zoo-keeper to the dinosaur.

The provision of advice to consumers is the growth area and one which financial services institutions believe will give them their competitive edge. The new regulator, the Australian Securities and Investment Commission (ASIC), has a legislation timetable to cover the introduction oi pathways to licensing advisors for retail financial service products. This concerns the introduction of regulation by function and there is still considerable debate in the industry on the assessment of the competency standards option which has been proposed by ASIC. It is vitally important that there is parity between these pathways.

The National Finance Industry Training Body (NFITAB) is undertaking extensive industry consultation to free up our two training packages, finance and insurance, for inclusion into an 'all finance' financial services framework to reflect the need for flexibility in the industry.

The impending introduction of legislation for licensing several occupations based on assessment against competency standards will place demand on the registered training organisations (RTOs) in an untested area. There is a great degree of cynicism within the industry over whether the RTOs and the Australian National Training

Authority (ANTA) system will work. The industry has had little involvement with the vocational education and training (VET) sector, particularly with publicly funded VET provision so there is some buyer resistance because of a lack of confidence.

The common perception of the financial services industry is one which must change. While the prevailing cry is 'big is beautiful', the industry is characterised by a long 'kite tail' of small business. The industry issue of distribution for economic survival is pertinent also for the training system in order to ensure equity of access for regional and remote area employers and employees.

A final consideration is that of the changing philosophy of human resource management because of the emergence of Sveiby's principles of knowledge organisation. The shift is from the highly regulated/procedural process-driven paradigm which is reflected in the distribution channels to the highly creative enterprise reflected in innovative and/or niche distribution networks.

This change is reflected most clearly in the market-to-book value of shares in organisations. For example, in 1995 the market value of Microsoft shares was an average price of $70.00 where their book value was only $7.00. For every dollar of a tangible asset, the market perceives an extra $9.00 of value. Skandia AFS, the giant Swedish financial services company, calculates that the ratio of intellectual capital to financial capital of an enterprise is between 5:1 and 16:1, the higher the intellectual component, the greater the creativity.

For people working within the industry the change in career paths is becoming apparent. No longer is evaluation based on a vertical model of rank and status but flexibility according to one's capabilities. The prime requirement is to provide and importantly mobilise knowledge to further the company goals while working in project-oriented teams. The challenge to the training system is to provide individuals capable of meeting the new reality.

NIBA: A case study in the finance and insurance industry

Linda Evans

Introduction

The National Insurance Brokers Association (NIBA) is a registered training organisation (RTO) delivering a range of educational products and services including competency assessment, and issuing nationally recognised credentials. The route which NIBA has taken to reach this destination offers a useful case study for other industry organisations attempting to develop an educational infrastructure to support objectives important to their constituents. In the case of the broking sector, these goals revolved around a desire to establish a professional and competitive positioning for brokers in the marketplace.

Broking is in the distribution end of the insurance product chain. Insurance companies provide their product wholesale to brokers and agents who deal directly with the customer. In some cases, such as in the domestic insurance market, insurers sell directly to the public. However, in the business market, insurance and related risk management services are purchased through an intermediary. Intermediaries require a skills and knowledge set that incorporates both technical understanding and the ability to deal with customers. NIBA has found this profile of professional behaviour is well defined through the competency standards development process.

However, there are important legal and practical distinctions between brokers and agents. Put simply, agents are the representatives of the insurer, whereas brokers are legally defined as independent representatives of the consumer. These differences have influenced the development of vocational education and training (VET), and its delivery and uptake within the insurance industry. For example, insurers have taken responsibility for training their agents and their systems are more internally focussed. By contrast, brokers, primarily through NIBA, have set up a more external, industry-based training system to meet their needs.

Brokerage businesses range from multi-national companies which are larger than some general insurers, to small suburban practices. The industry profile is heavily skewed towards small businesses with around six staff. This profile significantly affects knowledge, attitudes and access to vocational training. Consequently, the delivery of training has tended to favour flexible modes.

In common with many defined business groupings, brokers formed a representative trade association to promote their aims and provide services to members in key areas like education, government relations and technical support. Currently, the association represents around 50 per cent of all registered life and general brokers but these members contribute around 95 per cent of all insurance premiums arising from the brokerage sector (around $5 billion per annum). The existence of a trade association with a charter to liaise with government and industry stakeholders at all levels and provide a diverse range of member services offers a natural environment for the development of an industry-developed and accepted educational system.

In some other sectors of the industry, the educational function is vested in special-purpose organisations separate from the main industry or peak body. In these cases sector consensus on training approaches is more difficult or takes longer to achieve.

In addition, the existence of a specific legal framework coupled with an active trade association like NIBA has also led a high degree of self-regulation. NIBA membership is not mandatory, but members abide by specific codes of conduct that have promoted the need for standardised education programs.

Broker standards and the development of VET

Defining the professional broker

As a response to globalisation, NIBA introduced a specific set of broking standards known as the Qualified Practising Insurance Broker (QPIB) system.

In 1990 NIBA members determined to address their role as professional service providers in order to ensure that broking would not only survive but prosper in the future. Brokers wanted to:

- increase public awareness of NIBA brokers
- enhance their competitive advantage of being the only group offering independent advice to consumers
- build recognition of broking as a worthwhile, professional career thus attracting 'new blood' into the industry

An educational infrastructure

NIBA recognised that a specific education and training infrastructure was needed to support this 'new broker' standard.

Initially NIBA's focus was on establishing a system of ongoing professional education. However, in terms of developing a 'unique body of knowledge', NIBA relied upon industry trainers like the Australian Insurance Institute to provide the underlying technical knowledge for brokers. In the early years NIBA supplemented this with some broker-specific courses at the management level.

This is a situation typical of a number of sectors in the industry. There is a long history of industry training programs leading to a plethora of private qualifications attained through well-established training institutes based on the old British chartered institute model. Technical and further education (TAFE) programs, while in existence, have often been seen as having limited value in the sector. There is also a perception that businesses recruit fully trained personnel, often directly from graduate programs. However, this applies to only some specialised segments of the industry and many people simply acquire their skills with a combination of partially completed structured courses and on-the-job experience.

Traditional industry providers have tended to concentrate on knowledge-based programs. Many brokers did not take up these offerings because the courses did not deliver the skills and knowledge set required by them in their day-to-day operational work. Until 1995, when NIBA introduced the first broker course, most insurance programs were more applicable to the staff working in insurance offices in either the underwriting or claims departments. It was clear that while brokers needed the same core technical knowledge as underwriters, this knowledge needed to be contexualised to their role of servicing the client. By 1993/94, NIBA was ready to embrace competency standards as a viable model to define the body of skills and knowledge that a broker needed.

NIBA's decision to move away from industry practice and establish an educational infrastructure based on the emerging Australian Qualifications Framework (AQF) system coincided with the changes in training administration at the national level. This saw a concerted push towards the development of industry competency standards and the opening-up of the system of training provision to accommodate specific industry providers. NIBA was quick to pick up on these changes and to build a new career pathway for brokers from entry level to senior broker and manager.

NIBA's development as an industry RTO

Initially NIBA's focus was on developing structured courses and curricula based on the approved competency standards. Today, with the introduction of the training packages, this continues to be an important aspect. However, the focus has broadened to incorporate those other more difficult areas of the training packages; that is, flexible delivery of training and recognition of current competency (RCC).

Unlike some sectors, broking has implemented this process rather seamlessly. A number of factors have contributed to this:

- Brokers are more concerned with the end product. NIBA markets participation in the structured courses or the RCC procedure as a means of helping brokers achieve industry recognition of their skills and knowledge and access to the QPIB designation.
- NIBA has extensively used its numerous membership forums and publications to promote the long-term benefits of the national system.

- The development of competency standards has been in the hands of a standing national education committee. This group has been instrumental in achieving acceptance of the benefits to brokers.
- NIBA has used many members to assist in the production of competency-based training materials.
- The competencies accurately reflect job functions of brokers. Significantly, overseas broker associations have been keen to adopt the QPIB and its supporting educational system.

Future trends

Extensive knowledge of competency standards and confidence in working with them has led to NIBA establishing its recognition system based on two main pathways.

Since 1997 NIBA has focussed on implementing alternative pathways to competency recognition. The assessment component of the Insurance Training Package has been particularly relevant to the broking sector given the work and education profile of many senior practitioners. Significant work has been done in piloting the best format for workplace assessment, both individually and within a group or regional assessment centre context.

Depending on the work situation of the broker and past education and training background, brokers are encouraged to undertake a course of study or RCC. NIBA has renamed the latter, senior professional assessment (SPA). Irrespective of the pathway chosen, the broker can be awarded a nationally recognised credential valid in any State and Territory in Australia. Importantly, NIBA has also linked recognition with meeting the educational requirements for QPIB or principal membership of NIBA or to gain entrance into an advanced broking study course.

The challenges

Marketing is a significant challenge for the future. NIBA will continue to push the message to managers and business owners that:

- training need not stand apart from the activities of the brokerage
- the structure of broker training allows them to use training more as a business resource similar to marketing
- training can be done when required in the job and at a reasonable cost
- trainees can obtain recognition for the training they do and the skills they perform on the job

A challenge for the future will be to build awareness and acceptance of NIBA's role as an RTO capable of providing services to brokerage businesses to help them meet their goals.

In developing course materials, NIBA is aware that work needs to be done to incorporate flexible delivery training to facilitate trainee success.

Brokerages differ in the availability of in-house training resources which means that in its combined role of educational provider and trade association, NIBA must provide specialist individualised advice to assist members and non-members alike.

Conclusion

Currently the industry is grappling with the outcomes likely to emerge from the proposed changes to regulation of financial intermediaries as part of the Wallis report implementation. This change will emphasise the demonstration of consumer advice competencies for all intermediaries. NIBA's experience strongly favours implementation based around the national training system under the competency model. Irrespective of whether this model is adopted, brokers will be able to accommodate the requirements to show competencies relating to client management and running a business through their current system.

Vocational education and training in Australian local government

Annabelle Langdale

Background

LOCAL GOVERNMENT TRAINING is the generic title of two companies: Australian Local Government Training, the industry training company and National Training Advisory, the industry training advisory board (ITAB). It is a not-for-profit organisation controlled by a board of directors that represents the key elements of national local government peak bodies: the Australian Local Government Association (ALGA), the Australian Services Union (ASU) and the Institute of Municipal Management (IMM).

The sector of government it represents is collectively Australia's third-largest employer, has the greatest geographical spread of employees in the country and is amongst the most diverse of occupational employers. It covers large urban councils (such as the Brisbane City Council, with a staff of 7000) and remote rural councils (including some Aboriginal land councils).

Local government is undergoing massive reform and restructuring with the introduction of amalgamations, increasing outsourcing of the workforce and the introduction of a competitive tendering system. At the same time it takes a leading role in the development of infrastructure and tourism projects of national significance, such as the Sydney Olympic Games. As a result, there is a need for the implementation of accredited, industry-relevant education and training, particularly at entry level.

Relationship to other bodies

There is a number of industry sectors with an interest in areas relevant to local government, including construction, community services and health, arts, and environment. Local government works closely with such sectors to ensure that the specific and individual needs of councils are met.

The obvious relationship between these sectors and the diversity of activity in local government is replicated in the relationship between the three tiers of government.

Traditionally, the three tiers of government have been seen as separate entities, not only in the functions they are responsible for, but also in the employment, education and training arenas. Restructuring, amalgamations, outsourcing and downsizing have meant that if any real level of portability of workers is to exist, we must begin to ensure some level of compatibility in education and training programs is offered across the three tiers.

Such compatibility must take cognisance of the changing nature of employment, particularly in the government sectors. Changes to be considered include the increasing use of short-term and contracted workers, joint programs and projects between both one or more of the tiers, or indeed by government agencies and private contractors, and the move towards both part-time and home-based employees.

Issues

A primary issue for consideration must be the development of options for lateral articulation into related sectors. This is particularly important in the growing areas where more than one tier of government, and in some instances, private contractors from an additional industry sector, are involved and where the outcome may result in either employment or qualification in the related sector.

An example of such a situation might be a major construction, such as a road, dam or bridge being undertaken by a consortium of State/Territory and local government with the involvement of private construction companies. In this instance it would be essential to ensure that the qualification resulting from any relevant education and training program was acceptable for future employment in any or all of these sectors.

Within local government training we are also looking at flexible and less resource-intensive models for providing education and training, particularly in relation to our remote and rural councils and our Aboriginal and Torres Strait Islander community councils. The importance of flexible delivery mechanisms for these non-urban areas cannot be measured easily. We are aware, however, that these are critical areas where cross-sector education and training would be invaluable.

Qualifications

Financial constraints often mean that much-needed training is not made available to those who most require it. There is an increasing tendency both in Australia and other countries, to believe that a high-level, post-graduate qualification is the answer to industry education and training needs. We believe that, while such qualifications are essential, particularly in the regulated sectors such as health and engineering, they are never a substitute for real, industry-based expertise.

In the same way that all industry sectors are placing an increasing reliance on an industry-agreed qualification framework, the government sectors must work towards a more standardised system for developing and implementing a qualification system which allows more readily for movement between the tiers.

National training packages for the government sectors and related industries, must create the flexibility that employers within the three tiers can utilise, both to meet their own employment and training needs, and to increase the employment and training and/or retraining access of employees.

The future

Our primary role therefore is to develop, promote and implement training services for local government. We must provide information and advice on effective ways of meeting the current vocational education and training needs of councils, which are consistent with the move to a more integrated education and training framework for all sectors of government in Australia.

Trends and training issues in government

Meg Barnett

WHAT ARE WE talking about when we talk of government administration? Basically the areas covered by this umbrella are the core business of government. We would argue that the public service is a very diverse employer with crossovers to many similar employment functions within the private sector. We would also, however, argue that the context in which we work is different from that of the private sector. For example, we have customer services, outdoor general services work, oversighting compliance within legislation, development and implementation of policy at all levels, and a broad range of general administrative work. Ongoing developments in public service employment include higher levels of contracted staff and devolutional broadening of many responsibilities which were traditionally more centralised or specialised. This situation is placing higher levels of responsibility on staff at more junior levels, resulting in a greater need for increases in the depth and diversity of skills required by those staff at lower levels. Speak to anyone in the public service now it is an entirely different workforce to be in. And it would be interesting to undertake research on the stress levels!

Consequently, managers are also being placed under increasing pressure to acquire the competencies needed to determine the skill and knowledge requirements of their teams to enable them to meet the strategic needs of the organisation. Managers will, therefore, need to be able to access relevant training for themselves and their employees. The complexity of the operating environment also increases the need for training to maintain the professional levels of service delivery required. This situation will help raise the marketability of a portable, national recognised system of training, such as the public service training package of the public service which is currently under development. This is going to be quite interesting because we have a very high level of skilled staff in terms of degrees, and trying to sell the benefits of the vocational education and training (VET) sector to our population has not been easy. With people coming in at base grade already with degrees, it is going to be difficult to convince them to undertake VET training.

One of the key trends for government is globalisation—globalisation of markets, the opening-up of competition, outsourcing and increasing use of information technology, redefinition of core business with the emphasis on quality service and management of competition along with reduced budgets, a focus on quality corporate governance in an environment of increasing contracting-out of services.

At present we have a declining and an ageing workforce. I know figures indicate that there's a slight increase in the 1987 mark but jobs overall in the public service are declining and the size of the public service, regardless of which political party is in power, will continue to decline. And we have an ageing workforce, as our figures and statistics show. One of the cross-jurisdictional programs at the moment is focussing on getting youth into the public service. We need to look at increasing flexible working arrangements, and that's working from home. Technology is here, let's utilise it. It is a global world out there.

Other issues include the desirability of a more fluid workforce. What I mean by that is the portability of moving between departments, outside departments, across from State to federal government. And the other important factor relates to those industrial constraints that stop us from being fluid as much as we would like to be.

I have outlined many key trends for government but what are the key training issues? Basically we have to concentrate our efforts on our existing population. Because of downsizing and low numbers entering the workforce, training efforts will need to be directed to existing staff rather than recruiting into government. Public Service Education and Training Australia is the national peak body for the State and Commonwealth public services and we have recently received funding from the Australian National Training Authority (ANTA) to develop the Public Services Training Package. Its implementation will be critical and so we realise that it will require effective marketing to ensure a good take-up rate.

Another important issue is accredited training portability. With staff moving within and outside government, training needs to keep pace and therefore be portable. There will always be a need for quality agency-specific development, but value for money would suggest that accreditation is essential. Staff need to be able to access training at times and in ways that best suit them and their agencies and regional and rural populations. There will always be a tension between whole-of-government training and development needs versus agency needs. And by that I mean those big reform issues like procurement or output budgetting etc. There will always be a need to have some sort of consistency for whole-of-government perspective. Now who does that training and the form that it comes in is still under consideration.

Recognition of lifelong learning is relevant. We are very much concerned with employees taking responsibility for learning in a way that probably five years ago they wouldn't have. And what we have seen there is that they are likely to change their occupation three or four times in a working life and therefore they need to own responsibility for their learning—not solely, there will always be a need for the employer to have a very heavy stake in it.

In terms of training within government, we are seeing an increased use of on-line technology. One State government, for example, is about to pilot an on-line learning environment across their intranet. It will be open to anyone within the public service in that particular State to access reading programs, chat lines etc. Most government agencies are now fostering partnerships with technical and further education and tertiary institutions to deliver and accredit their courses. There are certainly some in-house management development programs going on, but by and large people are recognising the need to bring in the experts and to have that program accredited and recognised. The public sector management course offers an interesting case in point. The course is open to participants from the three tiers of government. There is a national secretariat that operates out of Canberra, but each State and Territory co-ordinates and runs the program within the particular State or Territory and they hire in consultants to run the course. Basically it is a post-graduate certificate.

The concept of secondment and exchanges is very much part of government now and we are utilising those as a way of blurring the lines between private and public sectors. Increased use of coaching and mentoring is also an important initiative previously not viewed as part of on-the-job training. Increasingly, government agencies are using coaching and mentoring in a way that, again three years ago, they wouldn't have been doing.

It would be useful to undertake further research in the area of training to investigate issues such as where the training dollar goes, and the levels across government where the training dollar is spent. How much of it is on recognised accredited training? Do women receive an appropriate share of the training dollar? Does a lack of training prevent women from advancing to senior levels? What are considered to be best practice investment levels in training—what are the indicators? What is the impact on small agencies with regard to adopting competency-based training vocational education and training?

A final point I would like to make is that there is still much to be done before we can say there has been an across-the-board uptake of competency-based training in government employment. If you look at those areas we're not talking about—police, fire, emergency services—there's a very high uptake rate, but if you look at any of the other areas in government administrators there has been a low uptake.

Database training for SAAP Management and Reporting Tool

Janice Anderson

Background

In early July 1998 a partnership between the National Data Collection Agency (NDCA) and the Australian Centre for Public Administration and Business Training, part of the Canberra Institute of Technology, was established to provide database training for the Supported Accommodation Assistance Program (SAAP) Management and Reporting Tool (SMART) software. NDCA is located within the Australian Institute of Health and Welfare (AIHW). The Centre for Public Administration was to manage the roll-out of this training in two stages. Stage 1 was to be finalised by October 1998; stage 2 by June 1999. Stage 1 was designed as the pilot program. In stage 1, SMART training for approximately 370 participants was required in 29 different locations across Australia.

SMART is the name given to the customised database package commissioned by the NDCA to assist it in the collection of data. Agencies who regularly reported to the NDCA required training in the use of this package designed to simplify and computerise the reporting process. A series of one-day workshops providing training in the use of SMART had to be rolled out during a three-week period in August 1998. In the six weeks before the first workshop, three volumes of resource materials had to be updated, printed and distributed to training venues, the software had to be modified, trainers from six States had to be trained and the scheduled training dates and locations had to be finalised.

To achieve the goals of the project within the timeframe and within the budget, a series of 'partnerships' was established. The premier partnership was between the staff from the NDCA and staff from the Centre for Public Administration and Business Training. A secondary network was established with a technical and further education (TAFE) institute or college from each of the participating States. Each TAFE partner was located either in the capital city of that State or close to it. This network was developed from contacts made through the Australian TAFE Consortium.

The long term goals of the NDCA

The AIHW is an independent statutory authority which undertakes statistical and research work in the health, welfare and housing fields. The NDCA's role within the AIHW is to collect and analyse data for SAAP for the Commonwealth Department of Health and Family Services.

The SMART software was commissioned by the NDCA to improve the reporting process for both the agencies and the NDCA.

The long-term goals for the rollout of SMART software are to:

- increase the number of agencies using computer-based recording processes
- increase the accuracy of data submitted to the NDCA
- increase agency responsibility for electronic data collection
- reduce the time taken for agencies to reproduce data required by NDCA
- decrease the calls to the NDCA help desk from agencies who are using SMART
- improve the potential for using SMART to collect additional data and use this for research purposes

The CIT centre strategy

In order to keep costs to a minimum, an innovative strategy was proposed by the centre. This strategy involved the delivery of SMART workshops across Australia by a 'virtual national TAFE training provider'. A TAFE network was seen by industry to offer major advantages, as most cities and larger towns contained a TAFE college or TAFE annex.

One of the workshops in Canberra was attended by NDCA staff, some of whom were to provide telephone assistance to agency staff in the use of SMART should they require it. The second Canberra workshop was attended by six State training co-ordinators, NDCA representatives and two SAAP agency staff members.

The involvement of these industry representatives on this day was an essential ingredient to ensuring commitment to the national and local clients. The industry presentations enabled TAFE trainers to understand the rationale behind the SMART roll-out from the NDCA's perspective and also the nature of SAAP agency work.

After the Canberra workshop, four of the State training co-ordinators then organised their own State-based training day to increase the number of SMART trainers in their team.

A centre project manager was located at CIT's main campus at Reid in the Australian Capital Territory. A major challenge for CIT's centre project manager was to set up processes to ensure quality and consistency in both presentation and access to computer laboratories across the training workshops. Problems did occur when network restrictions prevented trainers from loading SMART onto TAFE networks even though this requirement had been cleared in advance.

The role of the NDCA

The main industry partner in this project was the NDCA. A team of four staff acted as the communication link between the SMART project and the SAAP agency participants who had identified that they wanted to be part of stage 1 of the SMART roll-out. The training provider was not directly involved in this communication loop The NDCA staff provided information about both Windows training and SMART training to SAAP agencies. They decided on the number and locations of these workshops. They scheduled workshops and communicated this schedule to participants. The NDCA was also responsible for modifying both the SMART user manual and SMART supervisor manual. This team organised a consistent presentation of all manuals and then printed and packaged these for distribution to all 29 different training locations.

Implementation and measuring success

Forty-three SMART workshops were delivered in seven States in three weeks for 370 participants. These workshops were held at 29 different venues and involved 18 trainers.

The immediate measurement of the success of the project has been gathered through a statistical analysis of the rankings and comments offered in participant evaluations and trainer evaluations. Overall, the participant evaluation forms provided a very positive view of the national implementation of SMART training. There were, however, some issues raised that need to be addressed to improve the process for the national roll-out of SMART training for stage 2. Most trainers reported that the workshops in which they were involved were successful, with participants enthusiastic about what SMART has to offer, and satisfied that they had achieved competence and confidence in the use of SMART within the timeframe available.

Benefits for industry

The benefits for industry of the approach described above are as follows:

- successful outsourcing of industry training
- the creation of an excellent product
- industry employees or agents upskilled and therefore more valuable assets to the organisation
- a training program delivered within budget and within a difficult timeframe
- the training provider acts as a third party and thus, although they are employed by industry, they are perceived by clients to be more neutral in the implementation of training for occasionally unfavourable activities
- useful information about client responses to training and new ways of working gathered for future programs
- industry managers can retain control of the direction and focus of training programs
- working with a TAFE network allows industry to effectively share the risks and encourages active problem-solving within a competitive environment

Benefits for training providers

The benefits for training providers of the approach described above are as follows:

- new links with other training providers trialled and established
- increased links with local industries re-promoted
- communication channels re-used for additional projects
- national team of trainers who have experience with projects not managed locally perceived a great advantage for commercial training areas
- national feedback by trainers provides valuable information about methodologies and problem-solving and validates professional approaches to training
- improved profile of each of the partners on the national training scene
- a model for the roll-out of other training

Benefits for participants

The benefits for participants of the approach described above are as follows:

- improved confidence and skills in the use of customised computing packages
- reduced time spent on reporting
- ability to share approaches with other agency staff
- improved understanding of government requirements
- positive attitude to the usefulness of training and TAFE as a source of upskilling
- catalyst to changing work practices

A union perspective

Sharan Burrow

IT IS IMPOSSIBLE to predict the future, but we can be sure of three things. First, the pace of change will continue to be white hot, and the global economy will continue to be volatile. Education will be alternatively blamed in that context and looked to for the solutions. Secondly, the mobility of good people and ideas will continue to increase so that changes at the national and the global level will increasingly have an impact on us in terms of our work as educators within this industry. And third, education and skills in education will determine whether we are to become followers and prisoners of a future others make, or whether we will make a future for ourselves. All of these challenges need education and research, and education not just for the few but for the many. In the changing complex world that this picture presents, public education is central to the future. A nation committed to the advancement of its own education system, properly resourced and organised on a national basis will be best positioned for the challenges ahead.

For the Australian Education Union, this means a dominant role in the vocational education and training (VET) sector for a strong technical and further education (TAFE) system. For Australian people, the implications of the current workforce change and the predictions for the next decade are significant. There is no doubt that the next century will be the education century. Changes in knowledge, image and communications will be central to everything we do. Advanced vocational training and research will be at the heart of technological transformation and global trade. If this is a new reality, then we have to ask ourselves as an industry, how we are best positioning ourselves to participate in a rapidly emerging connectivity between work and learning. And I'm sad to say that I think we are becoming more alienated, at least at the level of educational policy, from a partnership that needs to be constructed to make that connection positive and developmental. And do we genuinely have an understanding between the necessary partnerships in the business and industry world and the education world about the context in which we as an industry have to construct our base in order that we may serve all other industries?

The education industry is the largest single gross domestic product (GDP) consumer and is a little less than six per cent, and while this is inadequate, nevertheless it is significant, and suggests to you the importance of the industry in economic as well as social terms.

There are more than five million participants in the education industry—students, educators and other workers. The tertiary education sector, and I include TAFE in that definition, has undergone major changes in this decade and is in now in some significant turmoil. One set of reforms from the previous Labor Government has been superimposed by even more extreme policy directions in regard to privatisation, competitive market arrangements etc. from the current Liberal Coalition. Under the Labor Government of the 1980s, the case for expanding higher education was very definitely based on the belief that a highly educated population is essential if the country is to improve its international competitiveness, accelerate its economic growth and maintain and enhance its standards of living. In the secondary schools, we actually managed to increase retention rates from 58 per cent to 78 per cent, although they have now fallen again to 71 per cent, and that's somewhat alarming given the push to introduce VET as a pathway in partnership with general education to encourage students to remain at school until Year 12 or equivalent.

Of course, the growth in universities was nothing short of spectacular, although it had associated problems. But we are talking about 39 per cent in a decade, or the equivalent of 20 new universities, and of course in the VET area, while initially the growth was slow, it accelerated to an additional 18 per cent after the Carmichael report.

We have a problem again with the cut in growth money in terms of increasing unmet demand. The ambitions established for both VET and higher education, despite an early injection of growth money, were also designed to fit within the overall ambition of containing the levels of public expenditure on education. And it should be noted that, while there has been some widening of the funding base, semi-privatisation or commercial expansion in both universities and TAFE, real cuts in the funding base have now been put in place and they are biting deeply. I think we need to understand two complementary reforms to the growth and the funding base. Those are the broader areas of standards and the drive for standards, particularly industry standards in the VET sector. The first is what I would refer to as a maturing of industry training advisory bodies, or ITABs, as they took responsibility for industry standards and the introduction of the training reform agenda. The first has allowed both the government and the Australian National Training Authority (ANTA) to claim that VET is now industry-driven. Industry bodies were originally joint partnerships and while some of those have survived, those of us in the education sector have become very cynical during the last few years where there has been an attempt to drive education representatives off some of those bodies. We perceive this as short-sighted, naive, and only resulting in an alienation between industry and education, the sectors that require a genuine and strong partnership if we are to go forward.

I must say to you at this point, one of the great scandals of our nation, is that we have no ITAB for education and despite a six-year quest on our behalf, or even a little bit longer, the resistance is still there. You cannot seriously talk about standards for industry and then not talk about standards for your own industry. I think that this industry has to take a good hard look at itself and if we can't get past the government ownership of education to the extent that they will trust the industry to establish standards for workers within it, then some of the questions about the training needs we have will remain unanswered.

The other thing I would say to you about the whole ITAB question is that, it isn't just the exclusion of educators that's the problem. I actually think that we have in many cases fostered a reductionism of rich curriculum and content. ANTA needs to be able to assure customers who participate in education courses that the quality base is there. With a reduction in education content, the skills base in this country is at risk. But I do think that unless the national ITABs retain control of standards, then the whole environment of deregulated VET has the potential to provide a very narrow set of skills which will not encourage portability, or indeed encourage the depth of skills and qualifications we would want to see.

In relation to the Australian Qualifications Framework (AQF), the pathways concept assigned under this framework was to be fully recognised in 1999 and recognition given to the overlap of programs provided by the tertiary sector. Such a structure will tend to make student learning more comprehensive. This situation has, and continues to cause some tension between the sectors and there is a current move by universities to compete with TAFE and private providers with commercial elements, or the more commercial elements of the training market. And I think it is absolutely fundamental that this be addressed. You have only got to look at the transfer back from universities to TAFE, or forward I should perhaps say, which is something like almost three to one, to understand that industry-specific TAFE provision is recognised and required by many industries in this country. This isn't denying the value of a base provided by a degree but in some industries provision from both sectors is required.

The training market, in our view of course, is an artificial creation and I wish we had all the dollars associated with the effort that's gone into its nurturing, but it is predominantly government-constructed and funded. The reliance on privatisation and competition in other public utilities largely failed; service and quality have not improved and the prices have risen. I'm talking, of course, about things like gas, electricity, water and the like. In Australia, the cost of post-secondary education will continue to rise. The debate now about fees in TAFE or some kind of HECS-equivalent system, and the notion of user choice can only be dominated by the employer and is not genuinely a tool of the student, that is, consumer choice. The employer will effectively receive government subsidy for enterprise-specific training, engage the provider of their choice and the students will pay any additional fees and charges. Even then we are left with the fact that the student will get but a slice of the training that they need. Gone are the acceptances that, while students may pick and choose between courses, fundamentally, the bulk of the understanding is that, people in this country want a start in life or a retraining opportunity that delivers them a full set of qualifications and not bits of qualifications. I think we are perpetrating a great injustice to young people if we deny them the opportunity, and I would say, free access, to entry-level qualifications. That's not to say, of course, that it shouldn't be delivered in a more authentic set of arrangements in terms of partnerships across industry and the provider. But I think that social justice and equity and a comprehensive skills base for our nation is clearly at risk and we need to address it with our eyes open.

I would like to comment on the labour market. The nature of employment is changing dramatically and we need to understand this as an industry in order to be in a position to provide what's necessary. The proportion of the workforce in full-time permanent work is declining to a point where it will soon be less than half of all workers. More people are moving to and between temporary and full-time jobs and into self-employment. Australia, compared with 16 Organisation for Economic Co-operation and Development (OECD) countries, has the second-highest proportion of its workforce in temporary work. What does this mean in an industry of predominantly professionals? In schools, it means an increase in part-time and contract labour. So it isn't just the retirement age of people like us, it is also the fact that the jobs are no longer popular because of the job security question. And that translates into both TAFE and universities as well. How can you guarantee a quality base of employees when you have people who have virtually no capacity for loyalty or engagement in their work because they are moving across three or four part-time or temporary positions? There are no career paths, let alone job security. Why wouldn't other industries be commenting that we make a fuss about lifelong learning but we don't actually provide the required level of professional development or retraining required in our own back yard? And I think it is frightening to think that more and more of our teachers have gone now for years and years without substantial retraining. I would suggest that we have been very slack about actually making sure that teachers are not only well supported in terms of introducing vocational education and training, but that they also have appropriate industry and academic retraining to back them up.

Current and future issues and worker education and training

Terri Seddon

Outlook

EDUCATION IS AN industry that serves the Australian community by inducting the young and novices into ways of knowing, doing, living and being which are endorsed as appropriate by the public, governments, industry and other communities.

As Bob Connell (1995)[1] notes, education is a distinctive kind of work because its critical contribution to Australia lies in its capacity to enhance capacities for social practice. The work of education is unlike the production of other goods and services because it depends upon a process of co-production between teacher and learner. The teacher is not the producer of educated outcomes but a key, dynamic and direction-giving part of the learning contexts with which learners engage and develop. The teacher is the variable factor of production which enables learner development to not only take account of current knowledge, processes and arrangements but also to accommodate, in an ongoing and expansive way, changing knowledge, processes and arrangements.

The outcome of this co-production is the development of capacities for social practice both for the individuals involved and also for the collectives (nation, community, occupation, tribe) to which they belong. These capacities become evident as individual development: as learners gain in knowledge, skills and attitudes and as they increase their capacities to act as members of communities. More significantly, this process of learning enables individuals to learn to learn in an ongoing expansive cycle of activity, reflection, insight and understanding. Education enhances students' and teachers' capacities to act not just once off but in an ongoing way. And, as a result, this work of educating enhances not only individual development, but also the collective capacity to act, a capacity which is, itself, a significant form of collective property for the society, nation, tribe, community or occupation.

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[1] Connell, RW 1995, 'Transformative labour: Theorizing the politics of educators work', in *The politics of educators' work and lives*, ed. MB Ginsburg, Garland, New York.

Worker preparation

Training for those individuals who work in the education industry must be oriented to this complex task of enhancing individual and collective capacities for social practice in relation to many different communities and learning contexts. And this work of educating must be oriented not only to today but also to tomorrow.

A view of teachers as tribal elders inducting the young into the ways, knowledge and beliefs of a tribe provides a useful generic picture. It highlights that educators:

- embody ways of knowing, doing, living and being which are endorsed as valuable by the community
- engage with younger, novice and other members of various national, regional and occupational communities in processes which convey those endorsed ways of knowing, doing, living and being to others
- monitor and adjust those ways of knowing, doing, living and being in the light of changing circumstances to ensure that the capacities learners develop are optimal for their communities
- support learners while they develop enhanced capacities for social practice
- assess the performance of learners and, if warranted, publicise their achievements
- through their work, contribute to community development by enhancing communities' capacities to act and deal with change

Traditionally, educational workers who have received formal training (largely school teachers and teachers working in TAFE) have been prepared for educational work within the organisational frames of centralised State systems of education and training. They have been introduced to:

- disciplinary/occupational knowledge, skills and attitudes through degree programs, formal training programs (for example, teacher training, apprenticeships) or, in vocational education, through learning on the job
- pedagogical knowledge, skills and attitudes of relevance to the work of teaching in specific education sectors through specialised training programs usually offered in specific training locations with only limited access to workplaces

This provision has generally been front-end loaded with the expectation that, once in the workplace, teachers would continue to develop relevant knowledge, skills and attitudes as they gained workplace experience. The emphasis in this model of training was to enculturate teachers into prevailing educational norms of good practice.

New pressures in education worker preparation

These traditional patterns of training for educational workers have become increasingly contested in recent years. This is partly the result of government reforms which have decentralised educational provision but it is also an outcome of wider social and economic forces which have extended the scope of education work. Four main pressures have contributed to a rethinking of training for educational workers.

- *Critiques of traditional education training:* Teachers themselves have been sharp critics of teacher training. Their view that what they learned in teacher education programs did not adequately prepare them for the workplace has encouraged growing opportunities for workplace-based learning through both specialist pre-service provision and ongoing professional development.
- *Globalisation and the emergence of information capitalism:* Large-scale economic and social developments have encouraged the view that, with the advent of sophisticated information technologies, knowledge and information have become critical factors which enhance productivity. This development has privileged knowledge and knowledge workers in the economy. It has set education and training at the core of economic development and supported the development of a technoculture that integrates human and technological capacities at work. The recognition of knowledge as a generative force in economic production challenges the traditional hierarchy of academic and vocational knowledge. Productivity gains rest upon knowledge in workplaces.

  The teaching force is ageing. Its training is rooted in the older model of front-end socialisation which institutionalised a hierarchy of academic–vocational, disciplinary and occupational knowledges. This has led to new demands for increased productivity of learning. It has been realised by an erosion of traditional training requirements for educational workers, especially in vocational contexts, and increased emphasis on on-the-job training, work experience and workplace-based training, coupled with accreditation linked to recognition of prior learning.
- *Self-management:* Reforms aimed at decentralising State systems of education and training have been pursued in line with prevailing economic imperatives and ideologies. Organisations such as schools and institutes of technical and further education (TAFE) have been promised considerable autonomy in directing their own affairs.

  Despite this complex relationship between the rhetoric and reality of self-management, educational workers are having to develop a variety of different skills in order to self-manage their organisations.

  The withdrawal of centralised organisational supports accompanying decentralisation has also been experienced by individuals. In recent years, decentralisation, coupled with tight financial parameters in education enterprises has encouraged the move to more flexible employment arrangements, including contract appointments, performance-related pay and rewards, and performance-contingent job specifications or promotions. This requires education workers to develop new career management skills, knowledge about employment relations and capacities to clarify and negotiate their job portfolios to their best advantage.
- *The challenge of ongoing change:* Despite the substantial reforms in education and training in recent years, there is no indication that the pace of change will reduce. The redesign of education and training that has been effected through the 1980s and 1990s has generated both positive and negative developments.

Growing concerns about global recession also encourage the view that a shift in policy frames may eventuate. The Victorian State Training Board (1988, p.14)[2] confirms a policy sea change may be in the air. Its environmental analysis states:

> *In the 1980s and 1990s, training and further education has come to be defined in particular ways due to the policies of successive governments. These policies relate specifically to training and further education but also manage from 'whole of government' approaches. Key aspects of these policies . . . include approaches to teaching and learning, and the role of markets and quasi-market mechanisms in government.* It is increasingly clear that aspects of this approach are under challenge as an adequate basis for future development.

Such questioning foreshadows possible changes in the policy frames governing education and training. For educators these developments may mean further change in the organisation of educational work but may not mean significant changes in the core business of educating.

The significance of ongoing change in education lies in the acknowledgment that, firstly, the work of educating should be slow to change because this enables and protects the long-term work of individual and social development, and avoids unfounded quick-fix fads and fashions. Secondly, the work of educating should induct learners into capacities to understand and assess contextual developments, be critical of hype, fashion and other unfounded rhetoric, whatever its source, and be able to make judgements about probable and preferred courses of action on both long-term and short-term bases.

These emerging pressures on education and training suggest that the training of educators should be modernised in the following ways:

- Educators should be inducted into an occupational value system that:
  - puts the work of developing capacities for social practice first
  - recognises the developmental requirements of culturally diverse individuals and communities/organisations
  - acknowledges that capacity-building and the work of educating occurs in many different social sites
  - protects the institutional conditions that sustain the long-term rhythms of educational work
- Educators should be prepared as:
  - specialist teachers working in dedicated sites of foundational education and training (for example, schools, TAFE institutes, training organisations, universities)
  - generalist teachers for the learning society, sorting across national, regional and occupational communities
  - knowledge workers for the informational economy, enhancing productivity by linking learning work and organisational development in workplaces and other relevant sites

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[2] State Training Board, Victoria 1998, *A vision for training and further education in Victoria: Scenarios*, State Training Board, Victoria, Melbourne.

- Educators' preparation for work should include knowledge, skills and attitudes that enable:
    - documentation and local knowledge production which builds an information-based and social memory to extend evidence-based practice and enhance the operations of workplaces and/or communities
    - reticulation and knowledge dissemination, enabling knowledge to be circulated around sites of education and training, workplaces and communities
    - pioneering, experimentation and development in processes of self-management based upon justifiable assessment of existing procedures in the light of changing contexts and demands
    - critique, including the capacity to make well-founded judgements about student performance, educators' work, processes for self-management and contextual changes, and the capacity to make wise determinations of future directions and the developmental requirements that will sustain education and training as a responsible contribution to social development and well-being

Innovative training programs

Over the last ten years, the Faculty of Education at Monash University has been moving towards a view of vocational preparation of teachers which accommodates many of the features listed above. Contextual change both in the world of education and training, and in universities, has encouraged considerable debate and development oriented to supporting educational workers in the changing circumstances of educational work. Innovations include:

- school-based teacher education
- secondary school–university partnerships for action research to enhance effective learning
- management education
- teaching of English as a second language
- short-course professional development run throughout the Faculty's Professional Development Institute
- undergraduate and post-graduate programs for educators working in adult and vocational settings
- programs to support educators working in international education
- the professional doctorate (Doctor of Education—EdD)

These innovations acknowledge, in various ways, that:

- education workplaces work best when they are oriented to capacity-building amongst students, staff and their occupational communities
- capacity-building is enhanced when formal education is linked with informal workplace learning
- the faculty can contribute certain cultural, conceptual and organisational resources that encourage and enable expansive learning within the education industry's various learning partnerships

Let me illustrate these points with two examples: the Bachelor's Degree in Adult Learning and Development, a new undergraduate program that has been developed for adult and vocational educators; and the professional doctorate.

Bachelor's Degree in Adult Learning and Development

In the next decade, teachers and trainers working in vocational education and training (VET), industry and community settings will be expected to work in complex environments and perform diverse roles. Currently, the VET industry and community sectors are staffed with people from a variety of backgrounds, with differing qualifications and experience, but who, in many cases, have no systematic or formal teaching qualifications.

Barton (now Chisholm) Institute of TAFE identified a substantial market need for course provision in the VET field with the purpose of upgrading qualifications to a consistent undergraduate standard for all staff as part of their anticipated 1998 enterprise agreement. Barton approached the Faculty of Education in order to work together in meeting this need. Throughout this partnership, the faculty has been able to develop a course that is unique in its ability to be tailored to various workplace settings and be offered through flexible modes of delivery, increasing its attraction to a variety of organisations and individuals alike.

The proposed new undergraduate course recognises the trade or work-based experience of potential students as an indicator of competence in their field of expertise in much the same way that the undergraduate degree of Diploma of Education students (for example science, maths, art, music) ensures they have a thorough knowledge of a particular discipline before commencing their studies in education.

Doctor of Education

The Faculty of Education led the way introducing professional doctorates in Australia. The EdD program took its first cohort of students in 1991. Now, in 1998, there are over 100 students enrolled. These research degrees are aimed, primarily, at disciplined inquiry that addresses problems, topics and issues in education as a means of improving and extending professional practice in that service. The doctorate's extrinsic function lies in the professional realm and aims at developing research literacy within professional communities and helping leading educators, policy-makers and other professionals to optimise the development and exercise of their professional responsibilities.

Within the EdD program, provision has been informed by the view that research sits at the interface of three major professional discourses in education: centred in practice (site-based teaching, learning and management), policy (government or management decision-making) and the academy. Research can be initiated from any of these discursive fields but must speak across them to maximise the value and relevance of research.

Students who enrol in the EdD, to date, have tended to be practitioners preoccupied with the problems arising from site-based practice. In the course of the EdD program our aim is to:

- extend students' understanding of education and research
- assist them in recognising and working across the discursive codes that operate in policy, practice and academic professional communities in education
- develop students' capacities to plan, undertake and report research that is significant to the professional at large

Conclusion

Working with industry partners to develop, extend and fine-tune the faculty's programs provides opportunities for modernising training provision in education. In many cases, these partnerships build naturally on the faculty's extensive profile in professional engagement across sectors of education and training. However, there is considerable work associated with building and maintaining these partnerships. While the benefits of industry partnerships are already evident in student feedback and demand, the resource implications of these kinds of professional links need to be better acknowledged.

Factors shaping the training agenda in the health and community services industries

Lorraine Wheeler

Training needs of the community services and health industries

THE COMMUNITY SERVICES and health industries provide a continuum of human services, from highly specialised and acute care services to community-based services that focus on provision of support and advice, community education and promotion, and delivery of commercial services. The changing needs of the Australian population and government policies mean that the structure and operational arrangements of the industries are constantly changing to address these needs. The delivery of targetted training for workers is a constant priority.

Workforce characteristics

The community services and health industries are characterised by enormous breadth, diversity, and numbers of occupational categories and vast geographical distribution. Characteristics of the industries are:

- the fourth-largest employer nationally (approximately 10% of the Australian workforce)[1]
- over two million unpaid workers, making the industries the largest employer nationally[2]
- the highest participation rate of women nationally at 78 per cent [3]
- a very high participation rate of indigenous people
- a very high participation rate of people from a non-English-speaking background
- a workforce of part-time employees comprising 40 per cent of the workforce [4]

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[1] ABS 1997, *Labour force Australia*, cat.6203.0, February.
[2] ABS 1997, *Year book Australia*, cat.4441.0.
[3] ABS 1997, *Labour force Australia*, cat.6203.0, February.
[4] ABS 1997, *Labour force Australia*, cat.6203.0, February.

- increased levels of casual work[5]
- a predominantly mature-age workforce
- a diversity of types and sizes of organisations, including government, not-for-profit, private-enterprise and community-based organisations
- generally low levels of training expenditure in the industries
- low participation rates in training with 33 per cent of workforce having no post-school qualifications and 19 per cent having vocational education and training (VET) qualifications[6]
- a lack of national competency standards to cover work in the health industry
- disproportionate levels of technical and further education (TAFE) enrolments compared to workforce (10% of paid workforce nationally, but only 7.5% of TAFE enrolments were in health, community services)
- rapid technological advances in service delivery mechanisms, laboratory operations, diagnosis, communication and administration across the industries
- rapid growth of six per cent per annum, expected to accelerate as the baby boomers age

Issues impacting on training demand and delivery

Impact of industry workforce characteristics

Training needs, which arise from the profile of the industry workforce, include the need to address issues such as the:

- provision of improved access to training by responding to special needs in relation to child-care, part-time and casual work patterns, culturally specific needs
- availability of structured competency-based training in the health industry
- needs for management skills related to operating in a competitive market; for example, tendering-out, financial management, contract management
- changes and increased demands for skills in technology
- language and literacy skill needs
- training needs of volunteers/unpaid workforce
- impact of working in a diverse and changeable industry
- equipping of workers to work in service industries with a culturally diverse client base
- recognition of existing skills of mature workforce
- remoteness of many communities demanding multi-disciplinary training which is flexible, innovative and culturally appropriate
- cultural sensitivity and responsiveness

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[5] Unpublished Department of Employment, Education, Training and Youth Affairs (DEETYA) data (Allen) based on unpublished ABS 1997 labour force data.

[6] Unpublished DEETYA report (Allen) based on unpublished ABS 1997 labour force data.

Impact of changes in the way services are delivered

The community services and health industry in Australia is in the midst of significant changes which are redefining and refining the workforce and training needs of the industry.

- *Health:* The most fundamental influence on the training agenda in health is a change in the way services are delivered. This change in service delivery is from an acute, in-patient, hospital model. As a result patients are in hospital for much shorter periods and are much sicker during their hospital stay. These patients require a workforce with more sophisticated clinical, support and communication skills. VET-trained workers in hospitals providing support functions whether in food preparation, patient transport or personal care, also require skills that are much more sensitive and specific to client needs. Health services formerly delivered in hospitals are now increasingly provided in individuals' homes. This requires a change in the scope and structure of community health work affecting mainly nursing, allied health and personal care workers.
- *Community services:* The services formerly provided in hospitals cannot just be replicated in the community setting; instead new approaches to work must be developed. These new approaches require a re-examination of the scope of practice of many workgroups.

  This requirement for a wider skills base in the community sector is further reinforced by the fact that many patients have chronic and multiple health and social problems. Workers in the community frequently have to manage a full range of underlying social problems like domestic violence, unemployment or social isolation together with a disability or mental illness as well as chronic health conditions.

  The training implications of these changes in the way health and community services are delivered are substantial and still evolving. It may be that, over time, training needs to be structured to deliver new classifications of workers incorporating various combinations of skills from work roles such as counselling, case management, advocacy, nursing, allied health and personal care.
- *Impact of contracting-out of services:* The public sector is a declining employer in both the health and community services industry. They are affected by a trend to downsize and contract-out services. Training initiatives need to be sensitive to the needs of private sector employment and the need to equip workers to move from public to private sector work.
- *Impact of government initiatives/imperatives:* The community services and health industries are particularly sensitive to changes in government policy. All States and the private sector are currently experiencing a decline in health funding at a time of significantly increasing demand.

  The community services and health industries require a workforce that is adaptable, has a broad skills base and is flexible. There is a need for training to equip workers to operate effectively in a competitive and ever-changing environment.
- *Impact of the ageing of the Australian population:* The ageing of the population in Australia and the demographic impact of the ageing of the baby boomers have major significance for the workforce needs of the health and community services sector. The aged-care sector is a major growth area, with workers needed to support clients

in their homes, in hostels and in nursing homes. The need for skilled personal care workers and similar nursing classifications will continue to grow.

- *Impact of the increasing use of technology:* The changing and increasing use of technology in the industry both in management and clinical areas is affecting work. Computer literacy and understanding will be required across all sectors of the health workforce.
- *Impact of an ageing workforce:* The ageing of the workforce together with the difficulty of recruiting young people to areas like respite care, aged care and disability services is identified as a significant workforce planning and training issue.
- *Impact of increasing consumer expectations:* Increasing consumer expectations and emphasis on consumer rights have increased in both the health and community services industries. As a result there is a requirement for a workforce with strong communication, negotiation, mediation and customer relationship skills.

Future training

The current issues affecting service delivery and skills development needs in community services and health impact on the amount and type of training required in the industries:

- the training system must support responsiveness to regional differences and unpredictable changes and pressures placed on the industries
- need for transferable skills and recognition of common competencies
- development of a skills base which enables workers to apply competencies to various work functions/areas
- development of responses to specific national priorities in order to provide a co-ordinated national training strategy and to support effective service delivery

Community Services Training Package Framework

The Community Services Training Package Framework covers approximately 50 per cent of the community services workforce (80 000 workers). The qualifications in the Community Services Training Package are aligned to a standards and qualifications framework which has a three-part structure to provide for training which is transferable, consistent and flexible in order to meet the needs of individual organisations. The three components are:

- transferability—common units of competency taken from a pool of units that have been identified to a range of work areas in community services. They provide linkages to all other qualifications in the framework. These include: communication, organisational management, client service, advocacy, etc.
- consistency—specialisation units which are specifically related to the work that is unique to a work area or sector of the industry
- flexibility—optional units, a limited number of which must be taken from any endorsed national competency standards

National qualifications

Under the standards and qualifications framework the units of competency are grouped together and 'packaged' into qualifications and are named according to the work area/industry sectors and aligned in accordance with the Australian Qualifications Framework (AQF) level descriptors; for example, Certificate III in Community Services (Youth). These qualifications will be the only ones issued for the work areas covered by the training package.

The assessment guidelines in the training package set out the minimum mandatory requirements for assessment in the Community Services Training Package, and ensure national consistency. A worker may be assessed as demonstrating all the competencies required for a qualification, and this will result in a qualification regardless of where or how the competencies have been achieved. For any competencies which are not demonstrated in the assessment process, a training/learning strategy will be developed.

Proposed health training package

In 1998 Community Services and Health Training Australia scoped the health industry in preparation for the development of the health training package. This detailed analysis of the health industry identified where competency standards are required. The analysis also identified the applicability of the Community Services Training Package model to meet the needs of the health industry.

Broad areas of work in the industry include health sciences, environmental/public health, direct care support, ancillary services, complementary therapies. The health training package may incorporate a number of the community services common competencies; for example, administration, advocacy, community development, case management etc.

The challenge facing us (over the next 18 months to two years) is positioning ourselves to ensure the training needs for the coming decades will be met.

Flexible training strategies for social and community services: A case study

Berwyn Clayton and Lola Krogh

Introduction

In 1996, we commenced research into a range of issues associated with the delivery of the Diploma in Community Services (Welfare Studies). This work was undertaken as part of the Canberra Institute of Technology (CIT) Institute Assessment Project where individual teachers are allocated time to examine their assessment practice in order to identify mechanisms for improving learning outcomes.

This research project gave us the opportunity to work together to develop approaches beyond the more commonplace modes of delivery. It involved considerable critical reflection upon how we had been delivering and assessing training for the social and community services industry. It soon became clear that we needed to make major adjustments to our programs. Through trial, error and a good deal of debate, ideas for new approaches gradually evolved. These ideas were not grounded simply in curriculum or assessment change, but in innovative training arrangements which involved training partnerships between institutes of technology and individuals, and CIT and employers.

Forming the partnerships: Seeking the views of industry

This idea of forming training partnerships has required a considerable shift in approach for CIT teachers, managers and administrators. There is now a clear need to move training out into the community and to identify the preferred delivery modes and the training priorities of our clients. To do this effectively, appropriate information needed to be collected from the key stakeholders.

The project manager raised issues of training with managers and staff in a selection of agencies drawn from various fields in the industry. These fields included drug and alcohol, youth justice, women's services, child protection services, Aboriginal services and other relevant agencies. A focus group for CIT teachers and managers, industry representatives, the relevant unions and professional association, together with staff from the Australian Capital Territory Vocational Education and Training Authority was also held. This group discussed the concept of multiple training options and provided important additional input and support for the introduction of new approaches.

The first outcome of this information-gathering process was a general acknowledgment that CIT's Department of Community Development needed to unpack the existing curriculum to make it more flexible. In this way we could develop packages of training which were more relevant and more accessible for potential clients.

Innovative training arrangements: Agencies and individuals

Over a period of 12 months, the department has implemented a range of delivery strategies. These strategies include CIT-based delivery incorporating managed work-based learning projects; a combination of on-campus and workplace delivery; workplace delivery in partnership with the employer; workplace delivery in partnership with the employee and print-based external studies.

Training arrangement 1: Managed work-based learning projects

This option entails CIT-based delivery incorporating managed work-based projects. It is an enhancement of the traditional on-campus delivery with a field placement component. To provide greater flexibility for on-campus students we have incorporated managed work-based learning projects into the final semester of a two-year study program. The modules 'community work 2', 'field integration professional seminars 2' and 'field placement 2' are clustered to provide sufficient opportunity for students to demonstrate their abilities and meet the essential criteria for competence. These reality-based projects involve the student developing a concept proposal based on their own research and then negotiating with an agency to form a working partnership. The CIT teachers provide support for this process and assist in the clarification of project goals and planning. In every case, there is a requirement for the project to be realistic, useful and valued by the agency and the community. Ownership is seen as critical and this is further confirmed by industry involvement in student assessment.

Training arrangement 2: Integrated delivery

This arrangement involves a combination of on-campus and workplace delivery. Students are able to choose the learning modes in a mix which best suits their work and family commitments and their individual learning styles. As a consequence, some students are choosing to study the more practical modules based around a managed work-based learning project while attending classes for more theoretical components of the course. Other students are electing to do a completely different study mix.

Training arrangement 3: Work-based learning partnership with an agency

As a result of the liaison with industry, it was identified that a local juvenile justice facility was staffed by workers who had a strongly identified need for relevant and accessible training. In response to this need, a Certificate IV in Community Services—Youth Justice was developed by our department. An additional module, 'rehabilitation and reparation' was developed to meet the particular needs of this client. The ACT Department of Youth Justice has demonstrated its commitment to this training partnership by paying the CIT fees and providing a workplace training room for workplace workshops and tutorials. This program is being delivered as a pilot project, and delivery and assessment are done entirely on the job. An evaluation is being undertaken to determine comparative costs of the on- and off-job training components.

Training arrangement 4: Work-based learning partnership with individuals

The New South Wales Department of Community Services (Queanbeyan) is confronting similar training issues with their employees. Many workers have been with the department for a considerable period of time and they have developed skills through workplace experience, in-house training and departmental staff development programs. While this is extremely valid and valuable training, it provides no formally recognised qualification.

The New South Wales Department of Community Services (Queanbeyan) invited CIT to present the range of new training options at a team meeting, and managers have actively encouraged their workers to negotiate individual training plans with CIT. The learners who are involved in the training are asked to select a mentor in their own workplace. This mentor has to have sufficient time available to support the learner and cannot be an immediate supervisor. The processes for setting up the individual training plans for workers are similar to those employed with the ACT Department of Youth Justice.

Training arrangement 5: Print-based external studies

In moving towards more flexible delivery approaches it became evident that learning resources needed to be developed to support the programs. The project manager was able to access funding from the CIT Innovative Project to customise existing study guides and develop books of readings for the core modules of the Diploma of Community Services (Welfare). The development of these learning resources has allowed us to offer print-based external studies. This option has been particularly important for students moving interstate who wish to complete their studies.

Acceptance of these new training arrangements

The implementation of managed work-based learning projects has been a resounding success. They have been readily accepted by learners because they have considerable face validity.

Acceptance by industry has been indicated by the willingness of organisations to be further involved in managed work-based learning projects. Currently, agencies are offering more potential projects than our learners are able to take on.

Additional training arrangements are currently being negotiated.

Benefits for the key players

There are considerable benefits of a multi-faceted approach to the delivery of training.

Any learner is able to access a range of flexible training options based on individual needs. Newly developed learning resources, improved access to workplaces and a full range of workplace experiences have enhanced the quality of the learning process.

Furthermore, CIT has negotiated articulation arrangements with Charles Sturt University and the University of Canberra to ensure relevant pathways into higher education for workers across the industry.

In future, it is also envisaged that through these training partnerships, workers in the field with a CIT diploma and an appropriate level of experience, will be able to gain credit into the Graduate Diploma in Social Science or the Graduate Diploma in Community Development at the University of Western Sydney. These programs will provide the development of specialisations in the fields of child protection, community education and community services. Such links gives true credence to the validity of workplace learning.

For an industry which is attempting to break away from the age-old concept of welfare provision strongly supported by volunteerism, these strategies offer workplaces a time-effective training solution that meets the changing demands of their organisation.

From an institutional and departmental perspective, the Department of Community Development staff and CIT are also gaining considerable benefits. Staff are working closely with industry and other tertiary institutions. This provides them with the opportunity to renew or maintain the currency of their vocational knowledge and skills. Their willingness to work this way adds to their credibility and acceptance in industry and provides them with increased opportunities for networking, research and further development. The success of the new initiatives has generated further, more interesting work and strong support from within the institute. The innovations have increased the numbers enrolled in the institute courses and have improved the department's commercial edge in the current competitive training environment.

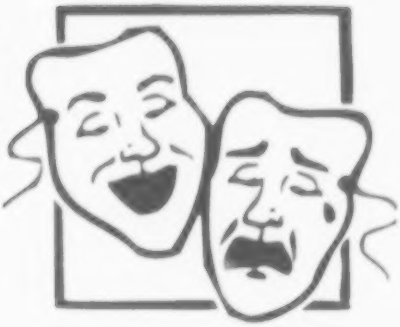
Finally, the outcomes of managed workplace learning projects which are utilised in all delivery approaches, offer community-based agencies significant opportunities for important project development. The publications, guidelines, needs analyses and new services generated from these projects significantly improve service provision to the wider community.

Learning from the experience

We have learned that the critical element for success in these new arrangements is the provision of support to learners as needed throughout their training. They also need quality information and the opportunity to interact regularly with teachers on issues and concerns associated with their study. It has also been important that we provide clear information to all partners in the training process. Regular discussion with workplaces, supervisors and mentors ensures that we are all working in the same direction.

What of the future?

We will continue to negotiate with key players in the social welfare and community services industry to provide training which is designed specifically for the needs of their workers. In addition, we will work with universities to develop broader and clearer pathways for the graduates of our training into appropriate higher education programs. These too, we are hoping, will be delivered in an equally flexible and accessible mode.



The YMCA as training providers

Rhys Williams

Introduction

THE YMCA OCCUPIES a pre-eminent position in the recreation industry as one of the largest providers of community recreation and outdoor recreation services. The full range of recreation services is provided through 250 establishments nationally, including camps, community recreation facilities, gymnasiums, aquatic facilities, child-care centres, and community centres.

The YMCA also contains significant expertise related to the standards, skills and competencies required for successful provision of recreation services. This stems from a long history of membership and leadership in industry peak bodies, industry training advisory bodies (ITABs) and other committees, and a willingness to share results of successful practice to public audiences.

The YMCA historically has been a significant trainer of its staff and other personnel in the sport and recreation, and other disciplines. The YMCA Institute of Education and Training, a registered training organisation (RTO) operating in each State and Territory, has recently been established to enable a more consistent and quality approach to YMCA education and training services under an accredited umbrella. *170*

Closely allied to this is the YMCA's status as group employer with a contract with the Department of Education, Employment, Training and Youth Affairs (DEETYA) to employ and host out sport and recreation trainees in each State and Territory. Trainers are located with both YMCAs (approximately 45%) and other industry employers (approximately 55%). As an RTO, the YMCA sources user-choice funds in each State and Territory to train these trainees. This work involves innovative flexible delivery of the Certificate II Sport and Recreation Traineeship to a large number of trainees across Australia.

The challenge

The challenge for the institute and its campuses may be summarised thus:

- delivering 390 hours of accredited training, combining both on- and off-the-job components, to a large number of trainees located usually in small numbers, across the nation. Only in capital cities do viable groups of trainees exist who can feasibly attend regular classes
- managing the on-the-job assessment and delivery component in enterprises which range from being well resourced, to a business where the trainee is sometimes the first employee outside family to be employed
- ensuring that key, industry-credentialled, in addition to VET-credentialled components (first aid, fitness instruction, coaching levels) are assessed and delivered to the appropriate standard
- providing for rolling enrolment and exit of trainees
- managing a quality, responsive and cost-efficient assessment/recognition of prior learning (RPL) process and training program for trainees ranging from young persons with little employment experience (and often language/literacy difficulties) to university graduates of physical education and human movement courses
- undertaking all of the above, within the constraints of funding rates as low as $4.50 per student contact hours (SCH) in some jurisdictions, and where on-the-job funding rates can be significantly lower than off-the-job rates
- managing assessment and training delivery where the expectation is that workplace personnel are suitably experienced, qualified and resourced to make a large contribution to the trainees' learning and development, and its formal recording. Often this does not match the reality, and requires additional interventions
- negotiating and formally reporting to seven different State training authorities each with different procedures related to implementing user choice, contracting, Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS) reporting etc.

The YMCA response

The institute has implemented a range of systems, policies and procedures to deal with the challenge. These cover financial control, quality, human resource management, professional development, and administration.

The key elements of the response is a fleximode or hybrid delivery strategy for the traineeship program, which is flexible enough to deal with the many variables described above, and yet at the same time does not validate an 'anything goes' approach.

A fleximode strategy contains an appropriate mix of face-to-face and self-paced modes, where each makes a significant contribution to the learner's program. The manner of delivery of these two components is also varied according to the situation.

The face-to-face component can involve:

- individualised instruction or small group instruction
- trainers, workplace personnel, external experts, mentors/coaches
- groups of trainees meeting without formal facilitation

The self-paced component can involve:

- commercial or locally produced self-paced learning materials
- applications of skills to a wide range of workplace tasks and accountability for successful outcomes

In addition, flexible application of the curriculum must occur. This involves, after assessment of current competency, careful selection of modules and customisation of their content for the trainee. In this way, both essential generic industry skills can be covered, and some particular enterprise needs can be addressed.

How effectively does this delivery strategy meet industry and enterprise needs?

Evaluation of this delivery method is undertaken through formal and informal, solicited and unsolicited feedback from trainees and host employers.

A general level of satisfaction is reported by both groups. Particular positive outcomes of the strategy (some of which measure elements other than the training program directly) for employers include:

- the trainee being unavailable for duty due to training commitments at more flexible and suitable times
- having a greater input into the training program, particularly being assisted in identifying areas where the trainee's skill development can directly improve business performance, or be integrated with projects undertaken at work

Negative outcomes of the strategy include:

- workplace staff required to make a greater commitment to the trainee and the training program
- roles, responsibilities and accountabilities of the personnel involved in the program can be complex and confusing

For trainees, the learning experience is generally reported as a positive one, related to immediate needs, and valued as it is accredited and certified. Disadvantages include lack of time allocated or taken for study in the workplace and the experience being too individualised with insufficient group learning and group experiences.

In summary, like other work-based strategies, its success in this industry depends upon all the personnel involved having a commitment to it, assisted through understanding how it works.

Training and the sport and recreational industries

Tony Guihot

Introduction

Sport and Recreation Training Australia was declared by the Australian National Training Authority (ANTA) as a national industry training advisory body (ITAB) in July 1997. Prior to that, the sport and recreation industries had their vocational education and training (VET) concerns addressed through the National Recreation Industry Training Advisory Body (late 1994 to the end of 1995) and Culture, Recreation Education and Training Enterprise during 1996.

Since being declared, Sport and Recreation Training Australia undertook in August and September 1997 an industry-wide scoping project. One of the outcomes of that scoping project was the identification of the need for four training packages to be developed: community recreation, fitness, outdoor recreation and sport. Since then work on two training packages has commenced with proposals for the other two currently with ANTA.

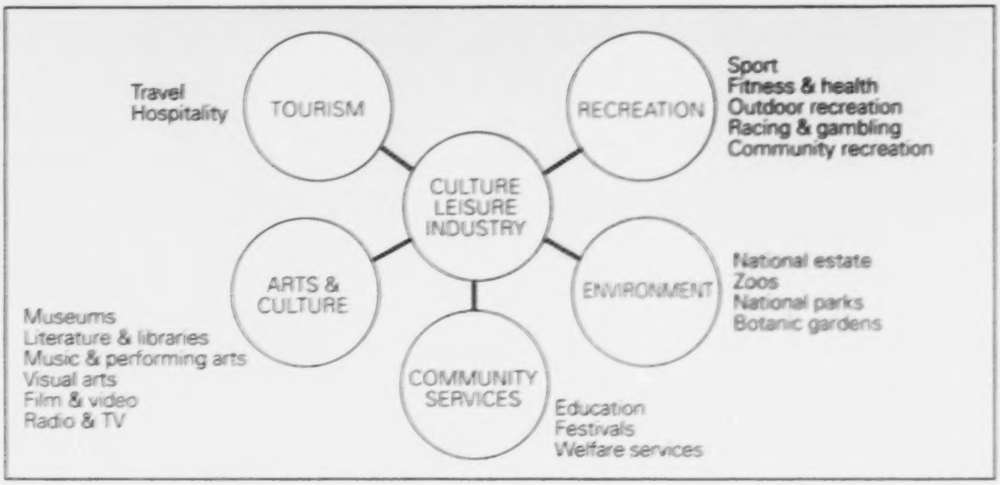
The sport and recreational industries

Various frameworks have been developed since 1973. These range from a model based on distinctions between providers of recreation to the United Nations Educational, Scientific and Cultural Organisation (UNESCO) culture-leisure model (figure 1) based on the difference between the creators of services (for example, individual workers), the products (for example, goods and services), the organisations creating and providing products, and the consumers of products (for example, recreation activities).

The Australian sport and recreation industry consists of four industries and their sub-sectors.

Community and government recreation activities providing the administrative infrastructure necessary to facilitate access to and participation in recreation opportunities. Sector includes: leisure education, community recreation activities and adaptive recreation.

Figure 1: Culture-leisure industry model


Travel
Hospitality
TOURISM
RECREATION
Sport
Fitness & health
Outdoor recreation
Racing & gambling
Community recreation
CULTURE LEISURE INDUSTRY
ARTS & CULTURE
ENVIRONMENT
National estate
Zoos
National parks
Botanic gardens
Museums
Literature & libraries
Music & performing arts
Visual arts
Film & video
Radio & TV
COMMUNITY SERVICES
Education
Festivals
Welfare services

Fitness providing facilities or services which contribute to physical fitness, not involving sport or interaction with the natural environment. Sector includes: fitness services and fitness facilities.

Outdoor recreation providing recreation opportunities involving interaction with the natural environment, not including formal sporting competitions. Sector includes: holiday camps, recreation equipment hire, outdoor activities and parks and gardens.

Sport providing facilities and services which contribute to opportunities for people to engage in activities which require physical effort and skills, are competitive, have formal rules and are organised within institutional structures. Sector includes: outdoor venues, indoor venues, sports administration, sports coaching and sports officiating.

The total number of full- and part-time people employed in the industry as identified in the Australian Bureau of Statistics (ABS) 1991 Population Census and supplied to Sport and Recreation Training Australia by ANTA is shown in table 1.

Table 1: Employment by ABS Australian standard industry classification (ASIC) codes, 1991

ASIC code	Sector	Number employed	% of total employment
	Sport and recreation undefined	787	1.8
9144	Sport and recreation (not elsewhere classified)	36 915	85.2
9141	Parks and zoological gardens	5 637	13.0
Total		**43 339**	**100.0**

Source: ABS, 1991 Census of population and housing

The November 1994 labour force survey based on an expanded Australia and New Zealand Standard Industry Classification (ANZSIC) framework identifies a total of 86 625 people employed in the recreation industry.

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Table 2: Employment by ABS ANZSIC codes, 1994

ANZSIC code	Sector	Number employed	% of total employment
923 (9231/ 9239)	Parks and gardens (zoological & botanical gardens/recreation parks & gardens)	10 720	12.4
931 (9311/ 9312/ 9319)	Sport (horse & dog racing/sports grounds/sports & services to sport)	53 946	62.3
933 (9330)	Other recreation services	21 959	25.3
Total		**86 625**	**100.0**

Source: ABS, November 1994 labour force survey

Growth in employment suggests that in real terms, cultural and recreation services (22%) is the second in overall growth to property and business services (24%) over the period 1991 to 1996. Strongest growth in this category has come from the sport and recreation industries.

Table 3: Industry employment comparisons 1991 to 1996

	Employment February 1991	Employment February 1996	Change % 1991 to 1996
Agriculture, forestry and fishing	430 800	428 400	-1.0
Mining	101 500	87 800	-13.5
Manufacturing	1 121 100	1 111 100	-1.0
Electricity gas and water	102 900	81 200	-21.0
Construction	573 500	602 400	5.0
Wholesale trade	514 500	482 200	-6.0
Retail trade	1 103 300	1 242 700	13.0
Accommodation cafés and restaurants	320 000	365 800	14.0
Transport and storage	388 400	392 900	1.0
Communication	144 800	170 600	18.0
Finance and insurance	341900	313 200	-8.0
Property and business services	635 900	789 000	24.0
Government administration and defence	360 500	388 500	8.0
Education	504 900	556 800	10.0
Health and community services	637 000	749 300	18.0
Cultural and recreation services	152 200	185 200	22.0
Personal and other services	275 700	317 000	15.0
Total	**7 708 900**	**8 264 100**	**7.0**

Source: ABS, 1996 labour force survey

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Table 4 shows the employment profile of this industry.

Table 4: Industry employment characteristics

Workforce characteristics	Disaggregation
Employment	❖ males 63.1%, females 36.9%
	❖ there are more 15–29 year olds (39% of our total)
Salaries	❖ 33.2% of sport and recreation workers gross less than $300 per work ($15 600 per annum)
	❖ 5.2% receive over $1000 per week (over $52 000 per annum)
	❖ median wage of $409 per week compared to $485 per week for all other occupations
Hours worked	❖ 59.9% full-time employed (at least 35 hours per week)
	❖ 16.7% work 16–34 hours per week
	❖ 18.8% work 1–5 hours per week
	❖ 3.1% 0 hours per week
Location	❖ 32.2% reside in New South Wales
	❖ 23.5% reside in Victoria

Source: Sport and Recreation Ministers' Council 1996, *Sport and recreation employment in Australia*

Occupational and qualifications profile

The occupational profile of the industry indicates lower levels of managers, tradespersons, advanced clerical and service, intermediate production/transport and labourers and related occupations. The industry has a relatively high proportion of professionals, associate professionals and intermediate clerical/sales/service occupations/compared with all industry figures.

The qualifications profile of the industry indicates:

- 37.5 per cent of workers with qualifications
  - 19.3 per cent other qualifications
  - 7.0 per cent engineering qualifications
  - 6.1 per cent agricultural qualifications
  - 5.15 per cent business and administration qualifications
- 58.5 per cent have no qualifications compared with the all-industry figure of 51.3 per cent

Occupational trends and skill shortages

Over the last ten years, there has been a number of occupations recording significant growth:

- receptionists and information clerks – up 159 per cent
- teachers and instructors – up 129 per cent
- sales assistants – up 94 per cent

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- accounting clerks – up 65 per cent
- sportspersons and related – up 59 per cent

A conservative estimate from a recent feasibility study is that the Olympic and Paralympic Games will provide a $6.5 billion injection into the Australian economy as well as creating 133 100 new jobs annually across all industries over a 14-year period from 1991 to 2004.

Over the past ten years, the recreation industry has experienced strong growth in employment. Based on ABS labour force projections, this growth is projected to continue, with the recreation, personal and other services sector expected to gain the third-highest share (16.6%) of future employment expansion between 1991 and 2001, behind the wholesale and retail (33%) and community services (22.1%) industries.

VET in the sport and recreation industries

VET in the sport and recreation industries occurs across the spectrum of public and private training providers with a corresponding variety of courses and fields of study.

The most recent comprehensive survey of recreation training provision identified an inverse relationship between occupational levels (from operative to professional level) and the levels of formal training courses (from short course certificates to degree courses).

Table 5 provides consolidated data for the four sectors of the industry and the changes that have occurred in the total number of both vocational and tertiary course offerings from 1990 to 1994. It has not been possible to undertake a comparison of the actual numbers of enrolments over this period because of the lack of resources needed to source tertiary enrolments.

Table 5: Number of vocational and tertiary courses in 1990 and 1994, by stream

Level and stream	1990	% of total	1994	% of total	% of growth
Undergrad. and post-grad courses	80	64	174	78.4	117.5
Assoc dip—Advanced tertiary	14	11	5	2.3	-64.3
Advanced certificate—tertiary			6	2.7	
Assoc dip—TAFE 3500	2	2	4	1.8	100.0
Advanced cert—TAFE 3300	2	2	5	2.3	150.0
Traineeships voc. certificates 3222	5	4	7	3.2	40.0
Pre-vocational cert. 3221	2	2	3	1.4	50.0
Initial vocational certificate 3212	0	0	1	0.5	
Pre-employment cert. 3100 (200 hrs)	4	3	1	0.5	-75.0
Certificates 3100 (short courses)	16	13	16	7.2	0.0
Total	**125**	**100**	**222**	**100.0**	**76.8**

Source: National Recreation Industry Training Advisory Board 1995, *National vocational education and training plan 1995–97*

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Despite increases in the number of vocational certificates and diplomas, the figures indicate that there has been little change from 1990 in that over three-quarters (78.4%) of the total number of course offerings are in the tertiary sector.

As illustrated, the area of greatest need for formal training is still at the vocational certificate, diploma and advanced diploma levels.

It has already been shown that the recreation industry is under-represented in relation to the levels of formal vocational qualifications of employees.

Other data provided to Sport and Recreation Training Australia from the National Centre for Vocational Education Research (NCVER) indicate a surprisingly high number of part-time VET enrolments indicating a demand for training from employed workers. Furthermore, there is a higher number of male than female part-time enrolments and slightly more female full-time than part-time enrolments.

Table 6: Comparison of sport and recreation employment and publicly provided training enrolments, 1994

	Employees	TAFE enrolments
Recreation	217 500	6 665
Total	**7 636 306**	**1 211 370**
Recreation as a % of total	2.5	0.55

Source: National Recreation Industry Training Advisory Board 1995, *National vocational education and training plan 1995–97*

Table 6 clearly demonstrates the disproportionate provision of publicly funded places for the recreation industry in comparison to the size of its workforce. The industry believes the size of its workforce, and its economic, social and physical significance warrants the provision of additional places.

Expenditure on training

Contrary to widely held opinions in regard to the amount of training support per person employed in sport and recreation, as compared to all training areas, there remains a huge amount of industry-based training being undertaken outside recognised training and funded by either employers or employees.

Based on a survey of 6000 employers selected from the ABS register of businesses, employers in the recreation, personal and other services industry grouping spent almost twice as much on in-house training as they did on external training. This suggests that recreation employers are more likely to provide on-the-job training and finance their employees to attend industry-provided training than finance their employees to attend formally recognised institutional training.

Some training issues in sport and recreation

Community recreation

There is a need for training of managers in facility and program management, implementing quality assurance and in the development of tenders/contracts.

In the same study, service delivery workers identified leadership and instructional skills, team and group management skills, and technical activity skills as preferred single subjects for training.

Specific needs of community recreation/disability co-ordinators include training in strategic planning and community development, evaluation, policy development, legal issues, working with other government agencies and with specific disabilities.

Fitness

A demand currently exists for fitness training for special populations; for example, the aged, disabled, children, rehabilitation, and corporate populations. Needs of both fitness service workers and managers/administrators include leadership and instructional technical activity skills and team and human resource management skills.

Outdoor recreation

A need currently exists for accessible, activity-specific training, and for training in the instructing of these activities.

Sport

Formal training for officials (referees, judges and umpires) is a priority particularly given the extra demands that will be placed on sports in organising major international competitions leading up to, and including the Sydney 2000 Olympics.

Professional development training for professional athletes is a priority, given the additional focus of the Sydney 2000 Olympics. Training for athletes needs to include skill training in media, career-planning, personal development, education, stress management, motivation, and legal issues.

Volunteers

The needs of volunteers are generally similar to those employed in the industry. Specific needs of volunteers include: training in fund-raising and sponsorship, marketing and promotion, volunteers and the law, administration etc.

Needs of disadvantaged groups

Needs of Aboriginal and Torres Strait Islander (ATSI) recreation officers include short courses in culturally appropriate community development.

Specialised training for people with disabilities is almost non-existent and this is a further issue which requires research and program development.

Language, literacy and numeracy

Literacy and numeracy has been identified as a particular issue with all sectors. The extent of the problem has not yet been properly determined.

Specific needs of small business

The recreation industry has a high level of representation of small business. Research would suggest that up to 95 per cent of sport and recreation businesses are small businesses.

It has been shown that delivery mode and accessibility are issues that affect the small business area. Training providers can better cater to small business by providing more activity and utilising flexible delivery methods.

Further issues to be resolved

How can the training needs of those working in the industry as volunteers, part-timers or casuals be addressed? Government funding mechanisms undervalue the needs of persons in these categories.

New Apprenticeships across all Australian Qualifications Framework levels may be one strategy to help improve the training culture in the industry.

More entry-level training and upskilling of the existing workforce is required to redress the lack of formal qualifications and the over-abundance of undergraduate and post-graduate education in the sport and recreation industry.

There is a need for New Apprenticeships that offer more flexible models of training to suit the requirements of people living in remote and isolated communities.

The outlook for careers in sport and recreation is better than average, although the provision of recognised training is lagging behind the provision of industry-based training. In a similar fashion to some other industries, sport and recreation employers and employees are comfortable about spending funds on quality training. The fact that sport and recreation industries currently have a preference to either purchase in-house or non-recognised training by a ratio of 2 to 1, suggests that the recognised training solutions developed to date have not met industry needs.

As an industry dominated by small businesses, training solutions need to take into account flexible options for both employers and employees. If the public system cannot meet these needs, the private system will and therefore should have access to public funds in support of this provision. The industry is more than happy to work together with training providers willing to meet their training needs with quality industry-based and flexible solutions.

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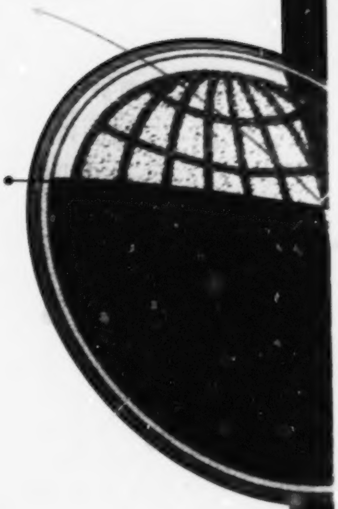

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